# github3.py Documentation

Release 1.0.1

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# Contents

1	Example	3	
	1.1 More Examples	4	
2	Modules 2.1 API	<b>17</b> 17	
	2.2 Authorization	27	
	2.3 Events	30	
	2.4 Gists	33	
	2.5 Git	40	
	2.6 GitHub	53	
	2.7 Issue	76	
	2.8 Models	87	
	2.9 Notifications	89	
	2.10 Organization	94	
	2.11 Pull Request	105	
	2.12 Repository	115	
		154	
		155	
		158	
	2.16 Internals	166	
3	Installation	167	
		167	
4		1/0	
4	Contributing         4.1       Contributor Friendly Work	169	
	4.2 Running the Unittests	109	
5	Contact	175	
6	Latest Version's Changes	177	
	6.1 1.0.1: 2018-03-14	177	
	6.2 1.0.0: 2018-03-13	177	
7	Testimonials	203	
Pv	Python Module Index		
± y	Python Module Index 2		

Release v1.0.1.

github3.py is wrapper for the GitHub API written in python. The design of github3.py is centered around having a logical organization of the methods needed to interact with the API. Let me demonstrate this with a code example.

# CHAPTER 1

# Example

#### Let's get information about a user:

```
from github3 import login
gh = login('sigmavirus24', password='<password>')
sigmavirus24 = gh.me()
# <User [sigmavirus24:Ian Stapleton Cordasco]>
print(sigmavirus24.name)
# Ian Stapleton Cordasco
print(sigmavirus24.login)
# sigmavirus24
print(sigmavirus24.followers_count)
# 4
for f in gh.followers():
   print(str(f))
kennethreitz = gh.user('kennethreitz')
# <User [kennethreitz:Kenneth Reitz]>
print(kennethreitz.name)
print(kennethreitz.login)
print(kennethreitz.followers_count)
followers = [str(f) for f in gh.followers('kennethreitz')]
```

# 1.1 More Examples

# 1.1.1 Using Two Factor Authentication with github3.py

GitHub recently added support for Two Factor Authentication to github.com and shortly thereafter added support for it on api.github.com. In version 0.8, github3.py also added support for it and you can use it right now.

To use Two Factor Authentication, you must define your own function that will return your one time authentication code. You then provide that function when logging in with github3.py.

For example:

```
import github3
try:
    # Python 2
   prompt = raw_input
except NameError:
    # Python 3
    prompt = input
def my_two_factor_function():
    code = ''
    while not code:
       # The user could accidentally press Enter before being ready,
        # let's protect them from doing that.
        code = prompt('Enter 2FA code: ')
    return code
g = github3.login('sigmavirus24', 'my_password',
                  two_factor_callback=my_two_factor_function)
```

Then each time the API tells github3.py it requires a Two Factor Authentication code, github3.py will call my\_two\_factor\_function which prompt you for it.

# 1.1.2 Using Tokens for Your Projects

Let's say you're designing an application that uses github3.py. If your intention is to have users authenticate, you have a few options.

- 1. Ask the user to enter their credentials each time they start the application. (Or save the username somewhere, and just ask for the password.)
- 2. Ask the user to supply their credentials once and store them somewhere for later use. (VERY VERY BAD)
- 3. Ask the user to supply their credentials once, get an authorization token and store that for later use.

The first isn't a bad method at all, it just unfortunately may lead to unhappy users, this should always be an option though. The second (as I already noted) is a bad idea. Even if you obfuscate the username and password, they can still be discovered and no level of obfuscation is clever enough. (May I also take this moment to remind people that base64 is **not** encryption.) The last is probably the least objectionable of the evils. The token has scopes so there is only so much someone can do with it and it works well with github3.py.

### **Requesting a token**

If you're not doing a web application, you are more than welcome to use github3.py (otherwise work with redirects). Let's say your application needs access to public and private repositories, and the users but not to gists. Your scopes should be ['user', 'repo']. I'm also assuming your application will not be deleting any repositories. The only things left to do are collect the username and password and give a good description for your application.

```
from github3 import authorize
from getpass import getuser, getpass
user = getuser()
password = ''
while not password:
    password = getpass('Password for {0}: '.format(user))
note = 'github3.py example app'
note_url = 'http://example.com'
scopes = ['user', 'repo']
auth = authorize(user, password, scopes, note, note_url)
with open(CREDENTIALS_FILE, 'w') as fd:
    fd.write(auth.token + '\n')
    fd.write(auth.id)
```

In the future, you can then read that token in without having to bother your user. If at some later point in the lifetime of your application you need more privileges, you simply do the following:

```
from github3 import login
token = id = ''
with open(CREDENTIALS_FILE, 'r') as fd:
    token = fd.readline().strip()  # Can't hurt to be paranoid
    id = fd.readline().strip()
gh = login(token=token)
auth = gh.authorization(id)
auth.update(add_scopes=['repo:status', 'gist'], rm_scopes=['user'])
# if you want to be really paranoid, you can then test:
# token == auth.token
# in case the update changes the token
```

Hopefully this helps someone.

# 1.1.3 Gist Code Examples

Examples with Gists

#### Listing gists after authenticating

from github3 import login

```
gh = login(username, password)
gists = [g for g in gh.iter_gists()]
```

### Creating a gist after authenticating

```
from github3 import login

gh = login(username, password)
files = {
    'spam.txt' : {
        'content': 'What... is the air-speed velocity of an unladen swallow?'
        }
        gist = gh.create_gist('Answer this to cross the bridge', files, public=False)
# gist == <Gist [gist-id]>
print(gist.html_url)
```

### Creating an anonymous gist

```
from github3 import create_gist

files = {
    'spam.txt' : {
        'content': 'What... is the air-speed velocity of an unladen swallow?'
        }
    gist = create_gist('Answer this to cross the bridge', files)
    comments = [c for c in gist.iter_comments()]
# []
comment = gist.create_comment('Bogus. This will not work.')
# Which of course it didn't, because you're not logged in
# comment == None
print(gist.html_url)
```

In the above examples 'spam.txt' is the file name. GitHub will auto-detect file type based on extension provided. 'What... is the air-speed velocity of an unladen swallow?' is the file's content or body. 'Answer this to cross the bridge' is the gists's description. While required by github3.py, it is allowed to be empty, e.g., '' is accepted by GitHub.

Note that anonymous gists are always public.

# 1.1.4 Git Code Examples

The GitHub API does not just provide an API to interact with GitHub's features. A whole section of the API provides a RESTful API to git operations that one might normally perform at the command-line or via your git client.

#### **Creating a Blob Object**

One of the really cool (and under used, it seems) parts of the GitHub API involves the ability to create blob objects.

```
from github3 import login
g = login(username, password)
repo = g.repository('sigmavirus24', 'Todo.txt-python')
sha = repo.create_blob('Testing blob creation', 'utf-8')
sha
# u'57fad9a39b27e5eb4700f66673ce860b65b93ab8'
blob = repo.blob(sha)
blob.content
# u'VGVzdGluZyBibG9iIGNyZWF0aW9u\n'
blob.decoded
# u'Testing blob creation'
blob.encoding
# u'base64'
```

# **Creating a Tag Object**

GitHub provides tar files for download via tag objects. You can create one via git tag or you can use the API.

```
from github3 import login
g = login(username, password)
repo = g.repository('sigmavirus24', 'github3.py')
tag = repo.tag('cdba84b4fede2c69cblee246b33f49f19475abfa')
tag
# <Tag [cdba84b4fede2c69cblee246b33f49f19475abfa]>
tag.object.sha
# u'24ea44d302c6394a0372dcde8fd8aed899c0034b'
tag.object.type
# u'commit'
```

# 1.1.5 GitHub Examples

Examples using the GitHub object.

### Assumptions

I'll just make some basic assumptions for the examples on this page. First, let's assume that all you ever import from github3.py is login and GitHub and that you have already received your GitHub object g. That might look like this:

```
from github3 import login, GitHub
from getpass import getpass, getuser
import sys
try:
    import readline
except ImportError:
    pass
try:
    user = raw_input('GitHub username: ')
except KeyboardInterrupt:
    user = getuser()
password = getpass('GitHub password for {0}: '.format(user))
```

```
# Obviously you could also prompt for an OAuth token
if not (user and password):
    print("Cowardly refusing to login without a username and password.")
    sys.exit(1)
g = login(user, password)
```

So anywhere you see g used, you can safely assume that it is an instance where a user has authenticated already.

For the cases where we do not need an authenticated user, or where we are trying to demonstrate the differences between the two, I will use anon. anon could be instantiated like so:

anon = GitHub()

Also let's define the following constants:

```
sigma = 'sigmavirus24'
github3 = 'github3.py'
todopy = 'Todo.txt-python'
kr = 'kennethreitz'
requests = 'requests'
```

We may not need all of them, but they'll be useful

## Adding a new key to your account

```
try:
   path = raw_input('Path to key: ')
except KeyboardInterrupt:
   path = ''
try:
   name = raw_input('Key name: ')
except KeyboardInterrupt:
   name = ''
if not (path and name): # Equivalent to not path or not name
    print ("Cannot create a new key without a path or name")
    sys.exit(1)
with open(path, 'r') as key_file:
   key = g.create_key(name, key_file)
    if key:
       print('Key {0} created.'.format(key.title))
    else:
        print('Key addition failed.')
```

### Deleting the key we just created

Assuming we still have key from the previous example:

```
if g.delete_key(key.id):
    print("Successfully deleted key {0}".format(key.id))
```

There would actually be an easier way of doing this, however, if we do have the key object that we created:

```
if key.delete():
    print("Successfully deleted key {0}".format(key.id))
```

### Creating a new repository

#### Create a commit to change an existing file

repo.contents('/README.md').update('commit message', 'file content'.encode('utf-8'))

### Follow another user on GitHub

I'm cheating here and using most of the follow functions in one example

```
if not g.is_following(sigma):
    g.follow(sigma)

if not g.is_subscribed(sigma, github3py):
    g.subscribe(sigma, github3py)

if g.is_subscribed(sigma, todopy):
    g.unsubscribe(sigma, todopy)

for follower in g.iter_followers():
    print("{0} is following me.".format(follower.login))

for followee in g.iter_following():
    print("I am following {0}.".format(followee.login))

if g.is_following(sigma):
    g.unfollow(sigma)
```

### Changing your user information

Note that you can not change your login name via the API.

```
new_name = 'J. Smith'
blog = 'http://www.example.com/'
company = 'Vandelay Industries'
bio = """# J. Smith
A simple man working at a latex factory
"""
if g.update_user(new_name, blog, company, bio=bio):
    print('Profile updated.')
```

This is the same as:

```
me = g.me() # or me = g.user(your_user_name)
if me.update(new_name, blog, company, bio=bio):
    print('Profile updated.')
```

# 1.1.6 Issue Code Examples

Examples using Issues

### **Administrating Issues**

Let's assume you have your username and password stored in user and pw respectively, you have your repository name stored in repo, and the number of the issue you're concerned with in num.

```
from github3 import login
gh = login(user, pw)
issue = gh.issue(user, repo, num)
if issue.is_closed():
    issue.reopen()
issue.edit('New issue title', issue.body + '\n-----\n**Update:** Text to append')
```

#### **Closing and Commenting on Issues**

```
# Assuming issue is the same as above ...
issue.create_comment('This should be fixed in 6d4oe5. Closing as fixed.')
issue.close()
```

#### Example issue to comment on

If you would like to test the above, see issue #108. Just follow the code there and fill in your username, password (or token), and comment message. Then run the script and watch as the issue opens in your browser focusing on the comment **you** just created.

The following shows how you could use github3.py to fetch and display your issues in your own style and in your webbrowser.

```
import webbrowser
import tempfile
import github3
template = """<html><head></head><body>{0}</body></html>"""
i = github3.issue('kennethreitz', 'requests', 868)
with tempfile.NamedTemporaryFile() as tmpfd:
    tmpfd.write(template.format(i.body_html))
    webbrowser.open('file://' + tmpfd.name)
```

Or how to do the same by wrapping the lines in your terminal.

```
import github3
import textwrap
i = github3.issue('kennethreitz', 'requests', 868)
for line in textwrap.wrap(i.body_text, 78, replace_whitespace=False):
    print line
```

#### Importing an issue

Not only can you create new issues, but you can import existing ones. When importing, you preserve the timestamp creation date; you can preserve the timestamp(s) for comment(s) too.

```
import github3
gh = github3.login(token=token)
issue = {
    'title': 'Documentation issue',
    'body': 'Missing links in index.html',
    'created_at': '2011-03-11T17:00:40Z'
}
repository = gh.repository(user, repo)
repository.import_issue(**issue)
```

#### Status of imported issue

Here's how to check the status of the imported issue.

```
import github3
issue = repository.imported_issue(issue_num)
print issue.status
```

# 1.1.7 Taking Advantage of GitHublterator

Let's say that for some reason you're stalking all of GitHub's users and you just so happen to be using github3.py to do this. You might write code that looks like this:

```
import github3
g = github3.login(USERNAME, PASSWORD)
for u in g.iter_all_users():
    add_user_to_database(u)
```

The problem is that you will then have to reiterate over all of the users each time you want to get the new users. You have two approaches you can take to avoid this with *GitHubIterator*.

You can not call the method directly in the for-loop and keep the iterator as a separate reference like so:

```
i = g.iter_all_users():
for u in i:
    add_user_to_database(u)
```

## **The First Approach**

Then after your first pass through your GitHubIterator object will have an attribute named etag. After you've added all the currently existing users you could do the following to retrieve the new users in a timely fashion:

```
import time
while True:
    i.refresh(True)
    for u in i:
        add_user_to_database(u)
    time.sleep(120)  # Sleep for 2 minutes
```

# The Second Approach

```
etag = i.etag
# Store this somewhere
# Later when you start a new process or go to check for new users you can
# then do
i = g.iter_all_users(etag=etag)
for u in i:
    add_user_to_database(u)
```

If there are no new users, these approaches won't impact your ratelimit at all. This mimics the ability to conditionally refresh data on almost all other objects in github3.py.

# 1.1.8 Using Logging with github3.py

New in version 0.6.0.

The following example shows how to set up logging for github3.py. It is off by default in the library and will not pollute your logs.

```
import github3
import logging
# Set up a file to have all the logs written to
file_handler = logging.FileHandler('github_script.log')
# Send the logs to stderr as well
stream_handler = logging.StreamHandler()
# Format the log output and include the log level's name and the time it was
# generated
formatter = logging.Formatter('%(asctime)s %(levelname)s %(message)s')
# Use that Formatter on both handlers
file handler.setFormatter(formatter)
stream_handler.setFormatter(formatter)
# Get the logger used by github3.py internally by referencing its name
# directly
logger = logging.getLogger('github3')
# Add the handlers to it
logger.addHandler(file_handler)
logger.addHandler(stream_handler)
# Set the level which determines what you see
logger.setLevel(logging.DEBUG)
# Make a library call and see the information posted
r = github3.repository('sigmavirus24', 'github3.py')
print('{0} - {0.html_url}'.format(r))
```

One thing to note is that if you want more detailed information about what is happening while the requests are sent, you can do the following:

```
import logging
urllib3 = logging.getLogger('requests.packages.urllib3')
```

And configure the logger for urllib3. Unfortunately, requests itself doesn't provide any logging, so the best you can actually get is by configuring urllib3.

You will see messages about the following in the logs:

- Construction of URLs used in requests, usually in the form: ('https://api.github.com', 'repos', 'sigmavirus24', 'github3.py')
- What request is being sent, e.g., POST https://api.github.com/user kwargs={}
- If JSON is trying to be extracted from the response, what the response's status code was, what the expected status code was and whether any JSON was actually returned.

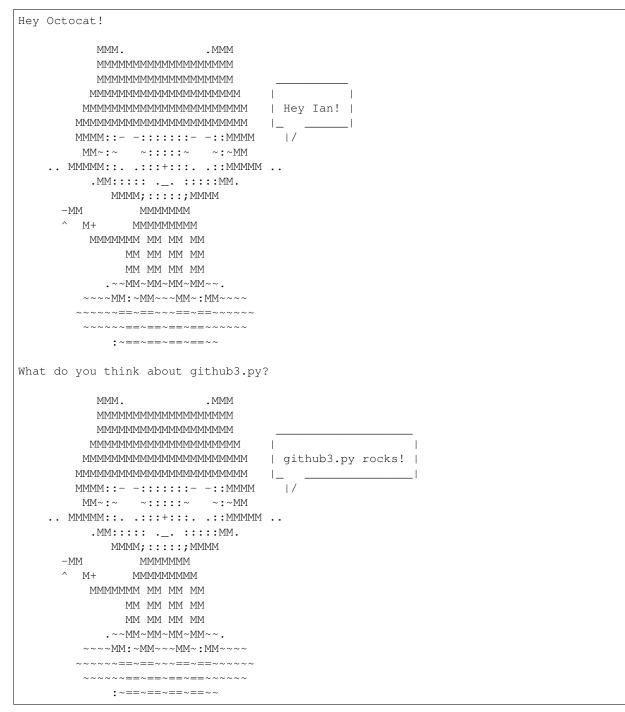
# 1.1.9 A Conversation With Octocat

```
import github3
```

```
print("Hey Octocat!")
print(github3.octocat("Hey Ian!"))
```

```
print("What do you think about github3.py?")
print(github3.octocat("github3.py rocks!"))
print("Thanks Octocat, that means a lot coming from you.")
print("FIN.")
print("""Epilog:
    The preceding conversation was entirely fictional. If you didn't realize
    that, you need to get out more.
""")
```

#### What you should see



Thanks Octocat, that means a lot coming from you.
FIN.
Epilog:
 The preceding conversation was entirely fictional. If you didn't realize
 that, you need to get out more. And yes, I did just have a
 conversation with an API. Cool, no? (Sad too, I guess.)

# CHAPTER 2

# Modules

# 2.1 API

This part of the documentation covers the API. This is intended to be a beautifully written module which allows the user (developer) to interact with github3.py elegantly and easily.

# 2.1.1 Module Contents

To interact with the GitHub API you can either authenticate to access protected functionality or you can interact with it anonymously. Authenticating provides more functionality to the user (developer).

To authenticate, you simply use github3.login().

github3.login (username=None, password=None, token=None, two\_factor\_callback=None) Construct and return an authenticated GitHub session.

**Note:** To allow you to specify either a username and password combination or a token, none of the parameters are required. If you provide none of them, you will receive None.

#### Parameters

- **username** (*str*) login name
- **password** (*str*) password for the login
- token (*str*) OAuth token
- two\_factor\_callback (*func*) (optional), function you implement to provide the Two Factor Authentication code to GitHub when necessary

Returns GitHub

With the *GitHub* object that is returned you have access to more functionality. See that object's documentation for more information.

To use the API anonymously, you can create a new GitHub object, e.g.,

```
from github3 import GitHub
```

```
gh = GitHub()
```

Or you can simply use the following functions

Obtain an authorization token for the GitHub API.

#### **Parameters**

- username (*str*) (required)
- password (str) (required)
- scopes (list) (required), areas you want this token to apply to, i.e., 'gist', 'user'
- **note** (*str*) (optional), note about the authorization
- **note\_url** (*str*) (optional), url for the application
- client\_id (str) (optional), 20 character OAuth client key for which to create a token
- **client\_secret** (*str*) (optional), 40 character OAuth client secret for which to create the token
- two\_factor\_callback (*func*) (optional), function to call when a Two-Factor Authentication code needs to be provided by the user.
- github (GitHub) (optional), GitHub (or GitHubEnterprise) object for login.

**Returns** Authorization

#### github3.create\_gist (description, files)

Create an anonymous public gist.

#### Parameters

- **description** (*str*) (required), short description of the gist
- **files** (*dict*) (required), file names with associated dictionaries for content, e.g. {'spam.txt': {'content': 'File contents ...'}}

 $Returns \ {\tt Gist}$ 

```
github3.gist(id_num)
```

Retrieve the gist identified by id\_num.

**Parameters id\_num** (*int*) – (required), unique id of the gist

Returns Gist

```
github3.gitignore_template(language)
```

Return the template for language.

Returns str

### github3.gitignore\_templates()

Return the list of available templates.

**Returns** list of template names

#### github3.issue(owner, repository, number)

Anonymously gets issue :number on :owner/:repository.

#### Parameters

- owner (str) (required), repository owner
- **repository** (*str*) (required), repository name
- **number** (*int*) (required), issue number

Returns Issue

Iterate over issues on owner/repository.

Changed in version 0.9.0: The state parameter now accepts 'all' in addition to 'open' and 'closed'.

#### • Parameters

- **owner** (*str*) login of the owner of the repository
- **repository** (*str*) name of the repository
- milestone (*int*) None, '\*', or ID of milestone
- **state** (*str*) accepted values: ('all', 'open', 'closed') api-default: 'open'
- **assignee** (*str*) '\*' or login of the user
- mentioned (str) login of the user
- labels (str) comma-separated list of label names, e.g., 'bug,ui,@high'
- **sort** (*str*) accepted values: ('created', 'updated', 'comments') api-default: created
- direction (str) accepted values: ('asc', 'desc') api-default: desc
- **since** (*datetime or string*) (optional), Only issues after this date will be returned. This can be a *datetime* or an ISO8601 formatted date string, e.g., 2012-05-20T23:10:27Z
- number (*int*) (optional), number of issues to return. Default: -1 returns all issues
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of ShortIssues

#### github3.all\_repositories (number=-1, etag=None)

Iterate over every repository in the order they were created.

**Parameters** 

- **number** (*int*) (optional), number of repositories to return. Default: -1, returns all of them
- etag(str) (optional), ETag from a previous request to the same endpoint

Returns generator of Repository

github3.all\_users(number=-1, etag=None)

Iterate over every user in the order they signed up for GitHub.

#### Parameters

- number (*int*) (optional), number of users to return. Default: -1, returns all of them
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of User

github3.all\_events (number=-1, etag=None)

Iterate over public events.

#### Parameters

- **number** (*int*) (optional), number of events to return. Default: -1 returns all available events
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of Event

#### github3.followers\_of (username, number=-1, etag=None)

List the followers of username.

#### Parameters

- username (str) (required), login of the person to list the followers of
- number (*int*) (optional), number of followers to return, Default: -1, return all of them
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of User

# github3.**followed\_by**(username, number=-1, etag=None)

List the people username follows.

### Parameters

- **username** (*str*) (required), login of the user
- **number** (*int*) (optional), number of users being followed by username to return. Default: -1, return all of them
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of User

#### github3.**public\_gists** (*number=-1*, *etag=None*) Iterate over all public gists.

New in version 1.0: This was split from github3.iter\_gists before 1.0.

#### **Parameters**

- number (*int*) (optional), number of gists to return. Default: -1, return all of them
- etag(str) (optional), ETag from a previous request to the same endpoint

Returns generator of Gist

#### github3.gists\_by(username, number=-1, etag=None)

Iterate over gists created by the provided username.

#### Parameters

- **username** (*str*) (required), if provided, get the gists for this user instead of the authenticated user.
- number (int) (optional), number of gists to return. Default: -1, return all of them
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of Gist

#### github3.organizations\_with (username, number=-1, etag=None)

List the organizations with username as a member.

#### Parameters

- **username** (*str*) (required), login of the user
- **number** (*int*) (optional), number of orgs to return. Default: -1, return all of the issues
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of ShortOrganization

```
github3.repositories_by(username, type=None, sort=None, direction=None, number=-1,
etag=None)
```

List public repositories for the specified username.

New in version 0.6.

Note: This replaces github3.iter\_repos

#### **Parameters**

- **username** (*str*) (required)
- type (str) (optional), accepted values: ('all', 'owner', 'member') API default: 'all'
- **sort** (*str*) (optional), accepted values: ('created', 'updated', 'pushed', 'full\_name') API default: 'created'
- direction (str) (optional), accepted values: ('asc', 'desc'), API default: 'asc' when using 'full\_name', 'desc' otherwise

- number (int) (optional), number of repositories to return. Default: -1 returns all repositories
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of Repository objects

github3.starred\_by (username, number=-1, etag=None)
Iterate over repositories starred by username.

#### Parameters

- **username** (*str*) (optional), name of user whose stars you want to see
- number (int) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of Repository

github3.subscriptions\_for (username, number=-1, etag=None) Iterate over repositories subscribed to by username.

#### **Parameters**

- **username** (*str*) name of user whose subscriptions you want to see
- **number** (*int*) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

```
Returns generator of Repository
```

```
github3.markdown (text, mode=", context=", raw=False)
Render an arbitrary markdown document.
```

#### **Parameters**

- **text** (*str*) (required), the text of the document to render
- mode (*str*) (optional), 'markdown' or 'gfm'
- **context** (*str*) (optional), only important when using mode 'gfm', this is the repository to use as the context for the rendering
- raw (bool) (optional), renders a document like a README.md, no gfm, no context

Returns str - HTML formatted text

github3.octocat(say=None)

```
Return an easter egg from the API.
```

Params str say (optional), pass in what you'd like Octocat to say

Returns ascii art of Octocat

#### github3.organization(name)

Return an Organization object for the login name.

**Parameters username** (*str*) – (required), login name of the org

Returns the organization

Return type Organization

#### github3.pull\_request (owner, repository, number)

Anonymously retrieve pull request :number on :owner/:repository.

#### **Parameters**

- owner (*str*) (required), repository owner
- **repository** (*str*) (required), repository name
- **number** (*int*) (required), pull request number

Returns PullRequest

#### github3.rate\_limit()

Return a dictionary with information from /rate\_limit.

The dictionary has two keys: resources and rate. In resources you can access information about core or search.

Note: the rate key will be deprecated before version 3 of the GitHub API is finalized. Do not rely on that key. Instead, make your code future-proof by using core in resources, e.g.,

```
rates = g.rate_limit()
rates['resources']['core'] # => your normal ratelimit info
rates['resources']['search'] # => your search ratelimit info
```

New in version 0.8.

Returns ratelimit mapping

Return type dict

# github3.repository (owner, repository)

Retrieve the desired repository.

Parameters

- owner (*str*) (required)
- repository (*str*) (required)

Returns the repository

Return type Repository

**Warning:** You will only be able to make 5 calls with this or other search functions. To raise the rate-limit on this set of endpoints, create an authenticated *GitHub* Session with login.

The query can contain any combination of the following supported qualifiers:

- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the file contents, the file path, or both.
- language Searches code based on the language it's written in.
- fork Specifies that code from forked repositories should be searched. Repository forks will not be searchable unless the fork has more stars than the parent repository.
- size Finds files that match a certain size (in bytes).
- path Specifies the path that the resulting file must be at.
- extension Matches files with a certain extension.
- user or repo Limits searches to a specific user or repository.

For more information about these qualifiers, see: http://git.io/-DvAuA

#### **Parameters**

- **query** (*str*) (required), a valid query as described above, e.g., addClass in:file language:js repo:jquery/jquery
- **sort** (*str*) (optional), how the results should be sorted; option(s): indexed; default: best match
- **order** (*str*) (optional), the direction of the sorted results, options: asc, desc; default: desc
- per\_page (int) (optional)
- text\_match (bool) (optional), if True, return matching search terms. See http://git.io/ 4ctleQ for more information
- number (int) (optional), number of repositories to return. Default: -1, returns all available repositories
- etag (str) (optional), previous ETag header value

Returns generator of CodeSearchResult

```
github3.search_issues(query, sort=None, order=None, per_page=None, text_match=False,
number=-1, etag=None)
```

Find issues by state and keyword

**Warning:** You will only be able to make 5 calls with this or other search functions. To raise the rate-limit on this set of endpoints, create an authenticated *GitHub* Session with login.

The query can contain any combination of the following supported qualifers:

- type With this qualifier you can restrict the search to issues or pull request only.
- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the title, body, comments, or any combination of these.

- author Finds issues created by a certain user.
- assignee Finds issues that are assigned to a certain user.
- mentions Finds issues that mention a certain user.
- commenter Finds issues that a certain user commented on.
- involves Finds issues that were either created by a certain user, assigned to that user, mention that user, or were commented on by that user.
- state Filter issues based on whether they're open or closed.
- labels Filters issues based on their labels.
- language Searches for issues within repositories that match a certain language.
- created or updated Filters issues based on times of creation, or when they were last updated.
- comments Filters issues based on the quantity of comments.
- user or repo Limits searches to a specific user or repository.

For more information about these qualifiers, see: http://git.io/d1oELA

#### Parameters

- query (str)-(required), a valid query as described above, e.g., windows label:bug
- **sort** (*str*) (optional), how the results should be sorted; options: created, comments, updated; default: best match
- order (str) (optional), the direction of the sorted results, options: asc, desc; default: desc
- **per\_page** (*int*) (optional)
- text\_match (bool) (optional), if True, return matching search terms. See http://git.io/ QLQuSQ for more information
- **number** (*int*) (optional), number of issues to return. Default: -1, returns all available issues
- etag (*str*) (optional), previous ETag header value

Returns generator of IssueSearchResult

github3.search\_repositories (query, sort=None, order=None, per\_page=None, text\_match=False, number=-1, etag=None)

Find repositories via various criteria.

**Warning:** You will only be able to make 5 calls with this or other search functions. To raise the rate-limit on this set of endpoints, create an authenticated *GitHub* Session with login.

The query can contain any combination of the following supported qualifers:

- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the repository name, description, readme, or any combination of these.
- size Finds repositories that match a certain size (in kilobytes).
- forks Filters repositories based on the number of forks, and/or whether forked repositories should be included in the results at all.

- created or pushed Filters repositories based on times of creation, or when they were last updated. Format: YYYY-MM-DD. Examples: created:<2011, pushed:<2013-02, pushed:>=2013-03-06
- user or repo Limits searches to a specific user or repository.
- language Searches repositories based on the language they're written in.
- stars Searches repositories based on the number of stars.

For more information about these qualifiers, see: http://git.io/4Z8AkA

#### Parameters

- **query** (*str*) (required), a valid query as described above, e.g., tetris language:assembly
- **sort** (*str*) (optional), how the results should be sorted; options: stars, forks, updated; default: best match
- **order** (*str*) (optional), the direction of the sorted results, options: asc, desc; default: desc
- **per\_page** (*int*) (optional)
- text\_match (bool) (optional), if True, return matching search terms. See http://git.io/ 4ct1eQ for more information
- **number** (*int*) (optional), number of repositories to return. Default: -1, returns all available repositories
- etag (str) (optional), previous ETag header value

Returns generator of Repository

Find users via the Search API.

**Warning:** You will only be able to make 5 calls with this or other search functions. To raise the rate-limit on this set of endpoints, create an authenticated *GitHub* Session with login.

The query can contain any combination of the following supported qualifers:

- type With this qualifier you can restrict the search to just personal accounts or just organization accounts.
- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the username, public email, full name, or any combination of these.
- repos Filters users based on the number of repositories they have.
- location Filter users by the location indicated in their profile.
- language Search for users that have repositories that match a certain language.
- created Filter users based on when they joined.
- followers Filter users based on the number of followers they have.

For more information about these qualifiers see: http://git.io/wjVYJw

#### **Parameters**

- **query** (*str*) (required), a valid query as described above, e.g., tom repos:>42 followers:>1000
- **sort** (*str*) (optional), how the results should be sorted; options: followers, repositories, or joined; default: best match
- **order** (*str*) (optional), the direction of the sorted results, options: asc, desc; default: desc
- per\_page (int) (optional)
- text\_match (bool) (optional), if True, return matching search terms. See http://git.io/ \_V1zRwa for more information
- **number** (*int*) (optional), number of search results to return; Default: -1 returns all available
- etag (*str*) (optional), ETag header value of the last request.

Returns generator of UserSearchResult

#### github3.user(username)

Retrieve a User object for the specified user name.

Parameters username (str) - name of the user

Returns the user

Return type User

#### github3.zen()

Return a quote from the Zen of GitHub. Yet another API Easter Egg.

Returns str

# 2.1.2 Enterprise Use

If you're using github3.py to interact with an enterprise installation of GitHub, you must use the *GitHubEnterprise* object. Upon initialization, the only parameter you must supply is the URL of your enterprise installation, e.g.

# 2.2 Authorization

This part of the documentation covers the Authorization object.

#### **class** github3.auths.**Authorization** (*json*, *session*) Representation of an OAuth Authorization.

See also: https://developer.github.com/v3/oauth\_authorizations/

This object has the following attributes:

#### app

Details about the application the authorization was created for.

#### created\_at

A datetime representing when this authorization was created.

#### fingerprint

New in version 1.0.

The optional parameter that is used to allow an OAuth application to create multiple authorizations for the same user. This will help distinguish two authorizations for the same app.

### hashed\_token

New in version 1.0.

This is the base64 of the SHA-256 digest of the token.

#### See also:

Removing Authorization Tokens The blog post announcing the removal of token.

#### id

The unique identifier for this authorization.

#### note\_url

The URL that points to a longer description about the purpose of this autohrization.

#### note

The short note provided when this authorization was created.

#### scopes

The list of scopes assigned to this token.

#### See also:

Scopes for OAuth Applications GitHub's documentation around available scopes and what they mean

#### token

If this authorization was created, this will contain the full token. Otherwise, this attribute will be an empty string.

#### token\_last\_eight

New in version 1.0.

The last eight characters of the token. This allows users to identify a token after the initial retrieval.

#### updated\_at

A datetime representing when this authorization was most recently updated.

#### add\_scopes (scopes, note=None, note\_url=None)

Add the scopes to this authorization.

New in version 1.0.

#### **Parameters**

• scopes (list) – Adds these scopes to the ones present on this authorization

- **note** (*str*) (optional), Note about the authorization
- note\_url (str) (optional), URL to link to when the user views the authorization

Returns True if successful, False otherwise

Return type bool

### as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

Return type dict

#### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

**Returns** this object's attributes as a JSON string

Return type str

#### delete()

Delete this authorization.

Returns True if successful, False otherwise

#### Return type bool

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

from\_json (json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

#### ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

```
refresh (conditional=False)
```

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

repos = [r for i in g.repositories\_by('kennethreitz')]
[r.refresh() for r in repos]

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

```
Returns self
```

**remove\_scopes** (scopes, note=None, note\_url=None)

Remove the scopes from this authorization.

New in version 1.0.

#### **Parameters**

- scopes (list) Remove these scopes from the ones present on this authorization
- **note** (*str*) (optional), Note about the authorization
- note\_url (str) (optional), URL to link to when the user views the authorization

Returns True if successful, False otherwise

#### Return type bool

**replace\_scopes** (*scopes*, *note=None*, *note\_url=None*)

Replace the scopes on this authorization.

New in version 1.0.

#### **Parameters**

- **scopes** (*list*) Use these scopes instead of the previous list
- **note** (*str*) (optional), Note about the authorization
- note\_url (str) (optional), URL to link to when the user views the authorization

Returns True if successful, False otherwise

Return type bool

# 2.3 Events

This part of the documentation covers the *Event* object.

# 2.3.1 Event Objects

```
class github3.events.Event (json, session)
```

Represents an event as returned by the API.

It structures and handles the data returned by via the Events section of the GitHub API.

Two events can be compared like so:

e1 == e2 e1 != e2

#### And that is equivalent to:

e1.id == e2.id e1.id != e2.id

#### actor

A EventUser that represents the user whose action generated this event.

#### created\_at

A datetime representing when this event was created.

id

The unique identifier for this event.

#### org

If present, a EventOrganization representing the organization on which this event occurred.

#### type

The type of event this is.

See also:

Event Types Documentation GitHub's documentation of different event types

#### payload

The payload of the event which has all of the details relevant to this event.

#### repo

The string representation of the repository this event pertains to.

Changed in version 1.0.0: This restores the behaviour of the API. To get a tuple, representation, use self.repo.split('/', 1)

#### public

A boolean representing whether the event is publicly viewable or not.

#### as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

#### Return type dict

### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

```
from_dict (json_dict, session)
    Return an instance of this class formed from json dict.
```

```
from_json (json, session)
```

Return an instance of this class formed from json.

```
static list_types()
List available payload types.
```

```
new_session()
```

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

#### ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

```
refresh(conditional=False)
```

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

#### Returns self

When accessing the payload of the event, you should notice that you receive a dictionary where the keys depend on the event type. Note:

- where they reference an array in the documentation but index it like a dictionary, you are given a regular dictionary
- where they reference a key as returning an object, you receive the equivalent object from the dictionary, e.g., for a Fork Event:

```
>>> event
<Event [Fork]>
>>> event.payload
{u'forkee': <Repository [eweap/redactor-js]>}
>>> event.payload['forkee']
<Repository [eweap/redactor-js]>
```

Using the dictionary returned as the payload makes far more sense than creating an object for the payload in this instance. For one, creating a class for each payload type would be insanity. I did it once, but it isn't worth the effort. Having individual handlers as we have now which modify the payload to use our objects when available is more sensible.

# 2.4 Gists

This part of the documentation details the properties and methods associated with *Gist*, *GistComment*, *GistHistory*, and *GistFile* objects. These classes should never be instantiated by the user (developer) directly.

# 2.4.1 Gist Objects

```
class github3.gists.gist.Gist(json, session)
```

This object constitutes the full representation of a Gist.

GitHub's API returns different amounts of information about gists based upon how that information is retrieved. This object exists to represent the full amount of information returned for a specific gist. For example, you would receive this class when calling *gist()*. To provide a clear distinction between the types of gists, github3.py uses different classes with different sets of attributes.

This object has all the same attributes as ShortGist as well as:

#### commits\_url

The URL to retrieve gist commits from the GitHub API.

#### original\_forks

A list of GistFork objects representing each fork of this gist. To retrieve the most recent list of forks, use the *forks()* method.

#### forks\_url

The URL to retrieve the current listing of forks of this gist.

# history

A list of *GistHistory* objects representing each change made to this gist.

#### truncated

This is a boolean attribute that indicates whether the content of this Gist has been truncated or not.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

#### Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

```
comments (number=-1, etag=None)
Iterate over comments on this gist.
```

# **Parameters**

- **number** (*int*) (optional), number of comments to iterate over. Default: -1 will iterate over all comments on the gist
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of comments

Return type GistComment

**commits** (*number*=-1, *etag*=None)

Iterate over the commits on this gist.

These commits will be requested from the API and should be the same as what is in Gist.history.

New in version 0.6.

Changed in version 0.9: Added param etag.

#### **Parameters**

- **number** (*int*) (optional), number of commits to iterate over. Default: -1 will iterate over all commits associated with this gist.
- **etag** (*str*) (optional), ETag from a previous request to this endpoint.

Returns generator of the gist's history

Return type GistHistory

#### create\_comment (body)

Create a comment on this gist.

**Parameters body** (str) – (required), body of the comment

Returns Created comment or None

Return type GistComment

# delete()

Delete this gist.

Returns Whether the deletion was successful or not

# Return type bool

edit (description=", files={})

Edit this gist.

#### Parameters

- **description** (*str*) (optional), description of the gist
- **files** (*dict*) (optional), files that make up this gist; the key(s) should be the file name(s) and the values should be another (optional) dictionary with (optional) keys: 'content' and 'filename' where the former is the content of the file and the latter is the new name of the file.

Returns Whether the edit was successful or not

Return type bool

fork()

Fork this gist.

Returns New gist if successfully forked, None otherwise

# Return type ShortGist

**forks** (*number*=-1, *etag*=None) Iterator of forks of this gist.

iterator of forks of this gist.

Changed in version 0.9: Added params number and etag.

# Parameters

- **number** (*int*) (optional), number of forks to iterate over. Default: -1 will iterate over all forks of this gist.
- etag (str) (optional), ETag from a previous request to this endpoint.

**Returns** generator of gists

Return type ShortGist

# from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

from\_json (json, session)

Return an instance of this class formed from json.

# is\_starred()

Check to see if this gist is starred by the authenticated user.

Returns True if it is starred, False otherwise

Return type bool

#### new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

#### **refresh** (*conditional=False*)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# star()

Star this gist.

Returns True if successful, False otherwise

#### Return type bool

#### unstar()

Un-star this gist.

Returns True if successful, False otherwise

Return type bool

#### **class** github3.gists.comment.**GistComment** (*json*, *session*) Representation of a comment left on a Gist.

See also: http://developer.github.com/v3/gists/comments/

Changed in version 1.0.0: The links, html\_url, and pull\_request\_url attributes were removed as none of them exist in the response from GitHub.

This object has the following attributes:

#### author\_association

The comment author's (user) association with this gist.

#### body

The markdown formatted original text written by the author.

#### body\_html

The HTML formatted comment body.

#### body\_text

The plain-text formatted comment body.

# created\_at

A datetime object representing the date and time when this comment was created.

#### id

The unique identifier for this comment.

#### updated\_at

A datetime object representing the date and time when this comment was most recently updated.

#### user

A ShortUser representing the author of this comment.

#### as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

#### Returns this object's attributes serialized to a dictionary

#### Return type dict

#### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

# delete()

Delete this comment from the gist.

Returns True if successful, False otherwise

Return type bool

#### edit (body)

Edit this comment.

**Parameters body** (*str*) – (required), new body of the comment, Markdown-formatted

Returns True if successful, False otherwise

#### Return type bool

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

from\_json (json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

#### ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

refresh(conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# class github3.gists.file.GistFile(json, session)

This represents the full file object returned by interacting with gists.

The object has all of the attributes as returned by the API for a ShortGistFile as well as:

#### truncated

A boolean attribute that indicates whether original\_content contains all of the file's contents.

#### original\_content

The contents of the file (potentially truncated) returned by the API. If the file was truncated use *content()* to retrieve it in its entirety.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

#### **Returns** this object's attributes as a JSON string

#### Return type str

#### content()

Retrieve contents of file from key 'raw\_url'.

Returns unaltered, untruncated contents of file.

Return type bytes

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

**class** github3.gists.history.**GistHistory**(*json*, *session*) This object represents one version (or revision) of a gist.

The GitHub API returns the following attributes:

#### url

The URL to the revision of the gist retrievable through the API.

#### version

The commit ID of the revision of the gist.

#### user

The ShortUser representation of the user who owns this gist.

# committed\_at

The date and time of the revision's commit.

#### change\_status

A dictionary with the number of deletions, additions, and total changes to the gist.

For convenience, github3.py also exposes the following attributes from the *change\_status*:

#### additions

The number of additions to the gist compared to the previous revision.

# deletions

The number of deletions from the gist compared to the previous revision.

# totoal

The total number of changes to the gist compared to the previous revision.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

### Returns this object's attributes as a JSON string

#### Return type str

# from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### gist()

Retrieve the gist at this version.

Returns the gist at this point in history or None

#### Return type Gist

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

#### Returns int

#### refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# 2.5 Git

This part of the documentation covers the module associated with the Git Data section of the GitHub API.

- Blob
- Commit
- GitObject
- Hash
- Reference
- Tag
- Tree

# 2.5.1 Git Objects

class github3.git.Blob(json, session)

This object provides an interface to the API representation of a blob.

See also: http://developer.github.com/v3/git/blobs/

Changed in version 1.0.0: The *content* is no longer forcibly coerced to bytes. The *decoded* is deprecated in favor of *decode\_content()*.

This object has the following atributes

#### content

The raw content of the blob. This may be base64 encoded text. Use *decode\_content()* to receive the non-encoded text.

#### encoding

The encoding that GitHub reports for this blob's content.

# size

The size of this blob's content in bytes.

# sha

The SHA1 of this blob's content.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

#### Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

#### decode\_content()

Return the unencoded content of this blob.

If the content is base64 encoded, this will properly decode it. Otherwise, it will return the content as returned by the API.

Returns Decoded content as text

Return type unicode

## decoded

Compatibility shim for the deprecated attribute.

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

from\_json (json, session)

Return an instance of this class formed from json.

new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# **class** github3.git.**ShortCommit** (*json*, *session*) This represents a commit as returned by the git API.

This is distinct from *RepoCommit*. Primarily this object represents the commit data stored by git. This shorter representation of a Commit is most often found on a *RepoCommit* to represent the git data associated with it.

See also: http://developer.github.com/v3/git/commits/

This object has the following attributes:

#### author

This is a dictionary with at least the name and email of the author of this commit as well as the date it was authored.

#### committer

This is a dictionary with at least the name and email of the committer of this commit as well as the date it was committed.

#### message

The commit message that describes the changes as written by the author and committer.

#### tree

The git tree object this commit points to.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

#### Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

#### **Returns** this object's attributes as a JSON string

#### Return type str

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

from\_json (json, session)

Return an instance of this class formed from json.

## new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

#### Returns int

```
refresh (conditional=False)
```

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

```
class github3.git.Commit(json, session)
```

This represents a commit as returned by the git API.

This is distinct from *RepoCommit*. Primarily this object represents the commit data stored by git and it has no relationship to the repository on GitHub.

See also: http://developer.github.com/v3/git/commits/

This object has all of the attributes of a *ShortCommit* as well as the following attributes:

# parents

The list of commits that are the parents of this commit. This may be empty if this is the initial commit, or it may have several if it is the result of an octopus merge. Each parent is represented as a dictionary with the API URL and SHA1.

#### sha

The unique SHA1 which identifies this commit.

#### verification

The GPG verification data about this commit. See https://developer.github.com/v3/git/commits/ #commit-signature-verification for more information.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

#### Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

# new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

#### refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

repos = [r for i in g.repositories\_by('kennethreitz')]
[r.refresh() for r in repos]

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# class github3.git.GitObject(json, session)

This object represents an arbitrary 'object' in git.

This object is intended to be versatile and is usually found on one of the following:

- Reference
- Tag

This object has the following attributes:

#### sha

The SHA1 of the object this is representing.

# type

The name of the type of object this is representing.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

#### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

#### Return type str

```
from_dict (json_dict, session)
```

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

#### Returns int

#### refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

#### class github3.git.Hash(json, session)

This is used to represent the elements of a tree.

This provides the path to the object and the type of object it is. For a brief explanation of what these types are and represent, this StackOverflow question answers some of that: https://stackoverflow.com/a/18605496/1953283

See also: http://developer.github.com/v3/git/trees/#create-a-tree

This object has the following attributes:

#### mode

The mode of the file, directory, or link.

# path

The path to the file, directory, or link.

#### sha

The SHA1 for this hash.

#### size

This attribute is only not None if the *type* is not a tree.

#### type

The type of git object this is representing, e.g., tree, blob, etc.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

#### Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

#### Returns this object's attributes as a JSON string

# Return type str

```
from_dict (json_dict, session)
    Return an instance of this class formed from json_dict.
```

```
from_json (json, session)
Return an instance of this class formed from json.
```

#### new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

#### ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

**refresh** (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

#### class github3.git.Reference(json, session)

Object representing a git reference associated with a repository.

This represents a reference (or ref) created on a repository via git.

See also: http://developer.github.com/v3/git/refs/

This object has the following attributes:

#### object

A *GitObject* that this reference points to.

# ref

The string path to the reference, e.g., 'refs/heads/sc/feature-a'.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

Return type dict

```
as_json()
```

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

# delete()

Delete this reference.

Returns True if successful, False otherwise

#### Return type bool

from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

# new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

#### ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

#### Returns self

**update** (*sha*, *force=False*) Update this reference.

#### **Parameters**

- **sha** (*str*) (required), sha of the reference
- **force** (bool) (optional), force the update or not

Returns True if successful, False otherwise

Return type bool

# class github3.git.Tag(json, session)

This represents an annotated tag.

Tags are a special kind of git reference and annotated tags have more information than lightweight tags.

#### See also: http://developer.github.com/v3/git/tags/

This object has the following attributes:

#### message

This is the message that was written to accompany the creation of the annotated tag.

#### object

A GitObject that represents the underlying git object.

# sha

The SHA1 of this tag in the git repository.

#### tag

The "lightweight" tag (or reference) that backs this annotated tag.

#### tagger

The person who created this tag.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

#### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

# new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

# **refresh** (*conditional=False*)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

repos = [r for i in g.repositories\_by('kennethreitz')]
[r.refresh() for r in repos]

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

class github3.git.Tree(json, session)

This represents a tree object from a git repository.

Trees tend to represent directories and subdirectories.

See also: http://developer.github.com/v3/git/trees/

This object has the following attributes:

# sha

The SHA1 of this tree in the git repository.

#### tree

A list that represents the nodes in the tree. If this list has members it will have instances of Hash.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

**Returns** this object's attributes as a JSON string

#### Return type str

from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

#### from\_json (json, session)

Return an instance of this class formed from json.

new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

recurse()

Recurse into this tree.

Returns A new tree

# Return type Tree

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

```
class github3.git.CommitTree(json, session)
```

This object represents the abbreviated tree data in a commit.

The API returns different representations of different objects. When representing a *ShortCommit* or *Commit*, the API returns an abbreviated representation of a git tree.

This object has the following attributes:

#### sha

The SHA1 of this tree in the git repository.

as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

# Returns this object's attributes as a JSON string

# Return type str

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

**from\_json** (*json*, *session*) Return an instance of this class formed from json.

new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

#### refresh()

Retrieve a full Tree object for this CommitTree.

**Returns** The full git data about this tree

Return type Tree

#### to\_tree()

Retrieve a full Tree object for this CommitTree.

**Returns** The full git data about this tree

Return type Tree

# 2.6 GitHub

This part of the documentation covers the *GitHub* object. A large portion of what you will likely want to do can be found in this class. If you're looking for anonymous functions, you're most likely looking for the *API*.

# 2.6.1 Examples

Examples utilizing this object can be found here.

# 2.6.2 GitHub Object

```
class github3.github.GitHub (username=", password=", token=")
Stores all the session information.
```

There are two ways to log into the GitHub API

```
from github3 import login
g = login(user, password)
g = login(token=token)
g = login(user, token=token)
```

or

```
from github3 import GitHub
g = GitHub(user, password)
g = GitHub(token=token)
g = GitHub(user, token=token)
```

This is simple backward compatibility since originally there was no way to call the GitHub object with authentication parameters.

# add\_email\_addresses(addresses=[])

Add the addresses to the authenticated user's account.

**Parameters** addresses (*list*) – (optional), email addresses to be added

**Returns** list of email objects

Return type [Email]

```
all_events (number=-1, etag=None)
```

Iterate over public events.

# Parameters

- **number** (*int*) (optional), number of events to return. Default: -1 returns all available events
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of events

Return type Event

```
all_organizations (number=-1, since=None, etag=None, per_page=None)
Iterate over every organization in the order they were created.
```

# **Parameters**

- **number** (*int*) (optional), number of organizations to return. Default: -1, returns all of them
- **since** (*int*) (optional), last organization id seen (allows restarting an iteration)
- etag (str) (optional), ETag from a previous request to the same endpoint
- per\_page (int) (optional), number of organizations to list per request

Returns generator of organizations

Return type ShortOrganization

**all\_repositories** (*number=-1*, *since=None*, *etag=None*, *per\_page=None*) Iterate over every repository in the order they were created.

#### **Parameters**

- **number** (*int*) (optional), number of repositories to return. Default: -1, returns all of them
- **since** (*int*) (optional), last repository id seen (allows restarting an iteration)

- etag (str) (optional), ETag from a previous request to the same endpoint
- **per\_page** (*int*) (optional), number of repositories to list per request

**Returns** generator of repositories

Return type ShortRepository

**all\_users** (*number=-1*, *etag=None*, *per\_page=None*, *since=None*) Iterate over every user in the order they signed up for GitHub.

Changed in version 1.0.0: Inserted the since parameter after the number parameter.

# **Parameters**

- number (*int*) (optional), number of users to return. Default: -1, returns all of them
- **since** (*int*) (optional), ID of the last user that you've seen.
- etag (str) (optional), ETag from a previous request to the same endpoint
- per\_page (*int*) (optional), number of users to list per request

#### Returns generator of users

Return type ShortUser

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

#### authorization (*id\_num*)

Get information about authorization id.

**Parameters id\_num** (*int*) – (required), unique id of the authorization

Returns Authorization

#### **authorizations** (*number=-1*, *etag=None*)

Iterate over authorizations for the authenticated user.

Note: This will return a 404 if you are using a token for authentication.

**Parameters** 

- **number** (*int*) (optional), number of authorizations to return. Default: -1 returns all available authorizations
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of authorizations

**Return type** Authorization

**authorize** (*username*, *password*, *scopes=None*, *note=*", *note\_url=*", *client\_id=*", *client\_secret=*") Obtain an authorization token.

The retrieved token will allow future consumers to use the API without a username and password.

#### Parameters

- **username** (*str*) (required)
- **password** (*str*) (required)
- scopes (list) (optional), areas you want this token to apply to, i.e., 'gist', 'user'
- **note** (*str*) (optional), note about the authorization
- **note\_url** (*str*) (optional), url for the application
- **client\_id** (*str*) (optional), 20 character OAuth client key for which to create a token
- **client\_secret** (*str*) (optional), 40 character OAuth client secret for which to create the token

Returns created authorization

Return type Authorization

# check\_authorization(access\_token)

Check an authorization created by a registered application.

OAuth applications can use this method to check token validity without hitting normal rate limits because of failed login attempts. If the token is valid, it will return True, otherwise it will return False.

Returns True if token is valid, False otherwise

Return type bool

create\_gist (description, files, public=True)

Create a new gist.

If no login was provided, it will be anonymous.

#### **Parameters**

- **description** (*str*) (required), description of gist
- files (*dict*) (required), file names with associated dictionaries for content, e.g. {'spam.txt': {'content': 'File contents ...'}}
- public (bool) (optional), make the gist public if True

Returns the created gist if successful, otherwise None

Return type created gist

Return type Gist

create\_issue (owner, repository, title, body=None, assignee=None, milestone=None, labels=[], assignees=None) Create an issue on the repository.

create an issue on the repository.

Note: body, assignee, assignees, milestone, labels are all optional.

**Warning:** This method retrieves the repository first and then uses it to create an issue. If you're making several issues, you should use *repository* and then use *create\_issue* 

# **Parameters**

- **owner** (*str*) (required), login of the owner
- **repository** (*str*) (required), repository name
- title (*str*) (required), Title of issue to be created
- **body** (str) (optional), The text of the issue, markdown formatted
- assignee (str) (optional), Login of person to assign the issue to
- **assignees** (optional), logins of the users to assign the issue to
- **milestone** (*int*) (optional), id number of the milestone to attribute this issue to (e.g. if m is a Milestone object, m.number is what you pass here.)
- **labels** (*list*) (optional), List of label names.

**Returns** created issue

Return type ShortIssue

#### create\_key(title, key, read\_only=False)

Create a new key for the authenticated user.

#### Parameters

- title (*str*) (required), key title
- key (str) (required), actual key contents, accepts path as a string or file-like object
- read\_only (bool) (optional), restrict key access to read-only, default to False

Returns created key

# Return type Key

**create\_repository** (name, description=", homepage=", private=False, has\_issues=True, has\_wiki=True, auto\_init=False, gitignore\_template=")

Create a repository for the authenticated user.

# Parameters

- **name** (*str*) (required), name of the repository
- **description** (*str*) (optional)
- homepage (str) (optional)
- private (*str*) (optional), If True, create a private repository. API default: False
- has\_issues (bool) (optional), If True, enable issues for this repository. API default: True

- **has\_wiki** (*bool*) (optional), If True, enable the wiki for this repository. API default: True
- **auto\_init** (bool) (optional), auto initialize the repository
- gitignore\_template (*str*) (optional), name of the git template to use; ignored if auto\_init = False.

Returns created repository

Return type Repository

#### delete\_email\_addresses(addresses=[])

Delete the specified addresses the authenticated user's account.

Parameters addresses (list) - (optional), email addresses to be removed

Returns True if successful, False otherwise

#### Return type bool

```
emails(number=-1, etag=None)
```

Iterate over email addresses for the authenticated user.

#### Parameters

- **number** (*int*) (optional), number of email addresses to return. Default: -1 returns all available email addresses
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of emails

# Return type Email

# emojis()

Retrieve a dictionary of all of the emojis that GitHub supports.

#### Returns

{

}

dictionary where the key is what would be in between the colons and the value is the URL to the image, e.g.,

```
'+1': 'https://github.global.ssl.fastly.net/images/...',
# ...
```

#### feeds()

List GitHub's timeline resources in Atom format.

**Returns** dictionary parsed to include URITemplates

# Return type dict

# follow (username)

Make the authenticated user follow the provided username.

**Parameters username** (*str*) – (required), user to follow

**Returns** True if successful, False otherwise

Return type bool

```
followed_by (username, number=-1, etag=None)
```

Iterate over users being followed by username.

New in version 1.0.0: This replaces iter\_following('sigmavirus24').

#### **Parameters**

- **username** (*str*) (required), login of the user to check
- **number** (*int*) (optional), number of people to return. Default: -1 returns all people you follow
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of users

Return type ShortUser

followers (number=-1, etag=None)

Iterate over followers of the authenticated user.

New in version 1.0.0: This replaces iter\_followers().

#### **Parameters**

- **number** (*int*) (optional), number of followers to return. Default: -1 returns all followers
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of followers

```
Return type ShortUser
```

followers\_of (username, number=-1, etag=None) Iterate over followers of username.

New in version 1.0.0: This replaces iter\_followers('sigmavirus24').

#### Parameters

- **username** (*str*) (required), login of the user to check
- **number** (*int*) (optional), number of followers to return. Default: -1 returns all followers
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of followers

```
Return type ShortUser
```

#### following(number=-1, etag=None)

Iterate over users the authenticated user is following.

New in version 1.0.0: This replaces iter\_following().

# Parameters

- **number** (*int*) (optional), number of people to return. Default: -1 returns all people you follow
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of users

Return type ShortUser

# from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### gist (id\_num)

Retrieve the gist using the specified id number.

**Parameters id\_num** (*int*) – (required), unique id of the gist

Returns the gist identified by id\_num

#### Return type Gist

# gists (number=-1, etag=None)

Retrieve the authenticated user's gists.

New in version 1.0.

# **Parameters**

- **number** (*int*) (optional), number of gists to return. Default: -1, returns all available gists
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of short gists

Return type :class:~github3.gists.ShortGist'

#### gists\_by (username, number=-1, etag=None)

Iterate over the gists owned by a user.

New in version 1.0.

#### **Parameters**

- **username** (*str*) login of the user who owns the gists
- **number** (*int*) (optional), number of gists to return. Default: -1 returns all available gists
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of short gists owned by the specified user

Return type ShortGist

#### gitignore\_template(language)

Return the template for language.

**Returns** the template string

Return type str

# gitignore\_templates()

Return the list of available templates.

**Returns** list of template names

#### Return type [str]

# is\_following(username)

Check if the authenticated user is following login.

**Parameters username** (*str*) – (required), login of the user to check if the authenticated user is checking

Returns True if following, False otherwise

#### Return type bool

is\_starred(username, repo)

Check if the authenticated user starred username/repo.

# **Parameters**

- **username** (*str*) (required), owner of repository
- **repo** (*str*) (required), name of repository

**Returns** True if starred, False otherwise

#### Return type bool

**issue** (username, repository, number)

Fetch issue from owner/repository.

# **Parameters**

- **username** (*str*) (required), owner of the repository
- **repository** (*str*) (required), name of the repository
- **number** (*int*) (required), issue number

# **Returns** the issue

## Return type Issue

**issues** (*filter=*", *state=*", *labels=*", *sort=*", *direction=*", *since=None*, *number=-1*, *etag=None*) List all of the authenticated user's (and organization's) issues.

Changed in version 0.9.0: The state parameter now accepts 'all' in addition to 'open' and 'closed'.

#### • Parameters

- filter (*str*) accepted values: ('assigned', 'created', 'mentioned', 'subscribed') apidefault: 'assigned'
- **state** (*str*) accepted values: ('all', 'open', 'closed') api-default: 'open'
- labels (str) comma-separated list of label names, e.g., 'bug,ui,@high'
- **sort** (*str*) accepted values: ('created', 'updated', 'comments') api-default: created
- direction (*str*) accepted values: ('asc', 'desc') api-default: desc
- **since** (datetime or str) (optional), Only issues after this date will be returned. This can be a *datetime* or an ISO8601 formatted date string, e.g., 2012-05-20T23:10:27Z
- number (int) (optional), number of issues to return. Default: -1 returns all issues
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of issues

Return type ShortIssue

issues\_on (username, repository, milestone=None, state=None, assignee=None, mentioned=None, labels=None, sort=None, direction=None, since=None, number=-1, etag=None) List issues on owner/repository.

Only owner and repository are required.

Changed in version 0.9.0: The state parameter now accepts 'all' in addition to 'open' and 'closed'.

#### Parameters

- **username** (*str*) login of the owner of the repository
- **repository** (*str*) name of the repository
- milestone (*int*) None, '\*', or ID of milestone
- **state** (*str*) accepted values: ('all', 'open', 'closed') api-default: 'open'
- **assignee** (*str*) '\*' or login of the user
- mentioned (str) login of the user
- labels (str) comma-separated list of label names, e.g., 'bug,ui,@high'
- **sort** (*str*) accepted values: ('created', 'updated', 'comments') api-default: created
- direction (*str*) accepted values: ('asc', 'desc') api-default: desc
- **since** (datetime or str) (optional), Only issues after this date will be returned. This can be a *datetime* or an ISO8601 formatted date string, e.g., 2012-05-20T23:10:27Z
- number (int) (optional), number of issues to return. Default: -1 returns all issues
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of issues

# Return type ShortIssue

#### key(*id\_num*)

Get the authenticated user's key specified by id\_num.

**Parameters id\_num** (*int*) – (required), unique id of the key

Returns created key

#### Return type Key

#### **keys** (*number=-1*, *etag=None*)

Iterate over public keys for the authenticated user.

#### Parameters

- number (*int*) (optional), number of keys to return. Default: -1 returns all your keys
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of keys

#### **Return type** Key

#### license(name)

Retrieve the license specified by the name.

**Parameters name** (*string*) – (required), name of license

**Returns** the specified license

Return type License

#### **licenses** (*number=-1*, *etag=None*)

Iterate over open source licenses.

**Returns** generator of short license objects

Return type ShortLicense

login (username=None, password=None, token=None, two\_factor\_callback=None)
Log the user into GitHub for protected API calls.

#### **Parameters**

- **username** (*str*) login name
- **password** (*str*) password for the login
- token (str) OAuth token
- **two\_factor\_callback** (*func*) (optional), function you implement to provide the Two Factor Authentication code to GitHub when necessary

#### markdown (text, mode=", context=", raw=False)

Render an arbitrary markdown document.

#### **Parameters**

- **text** (*str*) (required), the text of the document to render
- mode (*str*) (optional), 'markdown' or 'gfm'
- **context** (*str*) (optional), only important when using mode 'gfm', this is the repository to use as the context for the rendering
- raw (bool) (optional), renders a document like a README.md, no gfm, no context

Returns the HTML formatted markdown text

**Return type** str (or unicode on Python 2)

**me**()

Retrieve the info for the authenticated user.

New in version 1.0: This was separated from the user method.

Returns the representation of the authenticated user.

Return type AuthenticatedUser

#### membership\_in(organization)

Retrieve the user's membership in the specified organization.

**Parameters organization** (*Organization*) – the organization or organization login to retrieve the authorized user's membership in

Returns the user's membership

Return type Membership

#### meta()

Retrieve a dictionary with arrays of addresses in CIDR format.

The addresses in CIDR format specify the addresses that the incoming service hooks will originate from.

New in version 0.5.

**Returns** CIDR addresses

Return type dict

new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

**notifications** (*all=False*, *participating=False*, *number=-1*, *etag=None*) Iterate over the user's notification.

#### **Parameters**

- **all** (bool) (optional), iterate over all notifications
- **participating** (*bool*) (optional), only iterate over notifications in which the user is participating
- number (*int*) (optional), how many notifications to return
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of threads

Return type Thread

```
octocat (say=None)
```

Return an easter egg of the API.

Params str say (optional), pass in what you'd like Octocat to say

Returns ascii art of Octocat

Return type str (or unicode on Python 2)

**organization** (*username*)

Return an Organization object for the login name.

**Parameters username** (*str*) – (required), login name of the org

**Returns** the organization

Return type Organization

organization\_issues (name, filter=", state=", labels=", sort=", direction=", since=None, number=-1, etag=None)

Iterate over the organization's issues.

Note: This only works if the authenticated user belongs to it.

#### **Parameters**

- **name** (*str*) (required), name of the organization
- **filter** (*str*) accepted values: ('assigned', 'created', 'mentioned', 'subscribed') apidefault: 'assigned'
- **state** (*str*) accepted values: ('open', 'closed') api-default: 'open'
- labels (str) comma-separated list of label names, e.g., 'bug,ui,@high'
- **sort** (*str*) accepted values: ('created', 'updated', 'comments') api-default: created
- direction (*str*) accepted values: ('asc', 'desc') api-default: desc
- **since** (datetime or str) (optional), Only issues after this date will be returned. This can be a *datetime* or an ISO8601 formatted date string, e.g., 2012-05-20T23:10:27Z
- **number** (*int*) (optional), number of issues to return. Default: -1, returns all available issues
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of issues

#### Return type ShortIssue

organization\_memberships(state=None, number=-1, etag=None)

List organizations of which the user is a current or pending member.

Parameters state (str) - (option), state of the membership, i.e., active, pending

**Returns** iterator of memberships

Return type Membership

#### organizations (number=-1, etag=None)

Iterate over all organizations the authenticated user belongs to.

This will display both the private memberships and the publicized memberships.

#### **Parameters**

- **number** (*int*) (optional), number of organizations to return. Default: -1 returns all available organizations
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of organizations

Return type ShortOrganization

#### organizations\_with (username, number=-1, etag=None)

Iterate over organizations with username as a public member.

New in version 1.0.0: Replaces iter\_orgs ('sigmavirus24').

#### **Parameters**

- **username** (*str*) (optional), user whose orgs you wish to list
- **number** (*int*) (optional), number of organizations to return. Default: -1 returns all available organizations
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of organizations

Return type ShortOrganization

# project (number)

Return the Project with id number.

**Parameters number** (*int*) – id of the project

**Returns** the project

Return type Project

# project\_card(number)

Return the ProjectCard with id number.

**Parameters** number (*int*) – id of the project card

Returns ProjectCard

# project\_column(number)

Return the ProjectColumn with id number.

**Parameters number** (*int*) – id of the project column

Returns ProjectColumn

```
public_gists (number=-1, etag=None)
```

Retrieve all public gists and iterate over them.

New in version 1.0.

#### **Parameters**

- number (*int*) (optional), number of gists to return. Default: -1 returns all available gists
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of short gists

#### Return type ShortGist

pubsubhubbub (mode, topic, callback, secret=")

Create or update a pubsubhubbub hook.

#### **Parameters**

- mode (*str*) (required), accepted values: ('subscribe', 'unsubscribe')
- topic (*str*) (required), form: https://github.com/:user/:repo/events/:event
- **callback** (*str*) (required), the URI that receives the updates
- **secret** (*str*) (optional), shared secret key that generates a SHA1 HMAC of the payload content.

Returns True if successful, False otherwise

# Return type bool

```
pull_request (owner, repository, number)
```

Fetch pull\_request #:number: from :owner:/:repository.

# Parameters

- **owner** (*str*) (required), owner of the repository
- **repository** (*str*) (required), name of the repository
- number (*int*) (required), issue number

Returns PullRequest

## rate\_limit()

Return a dictionary with information from /rate\_limit.

The dictionary has two keys: resources and rate. In resources you can access information about core or search.

Note: the rate key will be deprecated before version 3 of the GitHub API is finalized. Do not rely on that key. Instead, make your code future-proof by using core in resources, e.g.,

```
rates = g.rate_limit()
rates['resources']['core'] # => your normal ratelimit info
rates['resources']['search'] # => your search ratelimit info
```

New in version 0.8.

Returns ratelimit mapping

Return type dict

#### ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

#### **refresh** (*conditional=False*)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

#### Returns self

```
repositories (type=None, sort=None, direction=None, number=-1, etag=None) List repositories for the authenticated user, filterable by type.
```

Changed in version 0.6: Removed the login parameter for correctness. Use repositories by instead

#### **Parameters**

- **type** (*str*) (optional), accepted values: ('all', 'owner', 'public', 'private', 'member') API default: 'all'
- **sort** (*str*) (optional), accepted values: ('created', 'updated', 'pushed', 'full\_name') API default: 'created'
- **direction** (*str*) (optional), accepted values: ('asc', 'desc'), API default: 'asc' when using 'full\_name', 'desc' otherwise
- **number** (*int*) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of repositories

#### Return type ShortRepository

**repositories\_by** (*username*, *type=None*, *sort=None*, *direction=None*, *number=-1*, *etag=None*) List public repositories for the specified username.

New in version 0.6.

## **Parameters**

- **username** (*str*) (required), username
- type (*str*) (optional), accepted values: ('all', 'owner', 'member') API default: 'all'
- **sort** (*str*) (optional), accepted values: ('created', 'updated', 'pushed', 'full\_name') API default: 'created'

- **direction** (*str*) (optional), accepted values: ('asc', 'desc'), API default: 'asc' when using 'full\_name', 'desc' otherwise
- **number** (*int*) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of repositories

**Return type** ShortRepository

**repository** (*owner*, *repository*) Retrieve the desired repository.

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- Parameters
  - **owner** (*str*) (required)
  - **repository** (*str*) (required)

Returns the repository

**Return type** *Repository* 

repository\_with\_id(number)

Retrieve the repository with the globally unique id.

**Parameters** number (*int*) – id of the repository

**Returns** the repository

Return type Repository

# revoke\_authorization (access\_token)

Revoke specified authorization for an OAuth application.

Revoke all authorization tokens created by your application. This will only work if you have already called set\_client\_id.

**Parameters** access\_token (*str*) – (required), the access\_token to revoke

Returns True if successful, False otherwise

Return type bool

revoke\_authorizations()

Revoke all authorizations for an OAuth application.

Revoke all authorization tokens created by your application. This will only work if you have already called set\_client\_id.

**Parameters** client\_id (*str*) – (required), the client\_id of your application

Returns True if successful, False otherwise

Return type bool

Find code via the code search API.

The query can contain any combination of the following supported qualifiers:

- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the file contents, the file path, or both.
- language Searches code based on the language it's written in.

- fork Specifies that code from forked repositories should be searched. Repository forks will not be searchable unless the fork has more stars than the parent repository.
- size Finds files that match a certain size (in bytes).
- path Specifies the path that the resulting file must be at.
- extension Matches files with a certain extension.
- user or repo Limits searches to a specific user or repository.

For more information about these qualifiers, see: http://git.io/-DvAuA

# Parameters

- query (str)-(required), a valid query as described above, e.g., addClass in:file language:js repo:jquery/jquery
- **sort** (*str*) (optional), how the results should be sorted; option(s): indexed; default: best match
- **order** (*str*) (optional), the direction of the sorted results, options: asc, desc; default: desc
- per\_page (int) (optional)
- text\_match (bool) (optional), if True, return matching search terms. See http://git. io/iRmJxg for more information
- **number** (*int*) (optional), number of repositories to return. Default: -1, returns all available repositories
- etag (str) (optional), previous ETag header value

**Returns** generator of code search results

Return type CodeSearchResult

Find issues by state and keyword.

The query can contain any combination of the following supported qualifers:

- type With this qualifier you can restrict the search to issues or pull request only.
- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the title, body, comments, or any combination of these.
- author Finds issues created by a certain user.
- assignee Finds issues that are assigned to a certain user.
- mentions Finds issues that mention a certain user.
- commenter Finds issues that a certain user commented on.
- involves Finds issues that were either created by a certain user, assigned to that user, mention that user, or were commented on by that user.
- state Filter issues based on whether they're open or closed.
- labels Filters issues based on their labels.
- language Searches for issues within repositories that match a certain language.
- created or updated Filters issues based on times of creation, or when they were last updated.
- comments Filters issues based on the quantity of comments.

• user or repo Limits searches to a specific user or repository.

For more information about these qualifiers, see: http://git.io/d1oELA

# Parameters

- **query** (*str*) (required), a valid query as described above, e.g., windows label:bug
- **sort** (*str*) (optional), how the results should be sorted; options: created, comments, updated; default: best match
- **order** (*str*) (optional), the direction of the sorted results, options: asc, desc; default: desc
- **per\_page** (*int*) (optional)
- text\_match (bool) (optional), if True, return matching search terms. See http://git. io/QLQuSQ for more information
- **number** (*int*) (optional), number of issues to return. Default: -1, returns all available issues
- etag (str) (optional), previous ETag header value

Returns generator of issue search results

Return type IssueSearchResult

Find repositories via various criteria.

The query can contain any combination of the following supported qualifers:

- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the repository name, description, readme, or any combination of these.
- size Finds repositories that match a certain size (in kilobytes).
- forks Filters repositories based on the number of forks, and/or whether forked repositories should be included in the results at all.
- created or pushed Filters repositories based on times of creation, or when they were last updated. Format: YYYY-MM-DD. Examples: created:<2011, pushed:<2013-02, pushed:>=2013-03-06
- user or repo Limits searches to a specific user or repository.
- language Searches repositories based on the language they're written in.
- stars Searches repositories based on the number of stars.

For more information about these qualifiers, see: http://git.io/4Z8AkA

#### **Parameters**

- **query** (*str*) (required), a valid query as described above, e.g., tetris language:assembly
- **sort** (*str*) (optional), how the results should be sorted; options: stars, forks, updated; default: best match
- **order** (*str*) (optional), the direction of the sorted results, options: asc, desc; default: desc
- per\_page (int) (optional)

- text\_match (bool) (optional), if True, return matching search terms. See http://git. io/4ctleQ for more information
- **number** (*int*) (optional), number of repositories to return. Default: -1, returns all available repositories
- etag (*str*) (optional), previous ETag header value

**Returns** generator of repository search results

Return type RepositorySearchResult

Find users via the Search API.

The query can contain any combination of the following supported qualifers:

- type With this qualifier you can restrict the search to just personal accounts or just organization accounts.
- in Qualifies which fields are searched. With this qualifier you can restrict the search to just the username, public email, full name, or any combination of these.
- repos Filters users based on the number of repositories they have.
- location Filter users by the location indicated in their profile.
- language Search for users that have repositories that match a certain language.
- created Filter users based on when they joined.
- followers Filter users based on the number of followers they have.

For more information about these qualifiers see: http://git.io/wjVYJw

# Parameters

- **query** (*str*) (required), a valid query as described above, e.g., tom repos:>42 followers:>1000
- **sort** (*str*) (optional), how the results should be sorted; options: followers, repositories, or joined; default: best match
- **order** (*str*) (optional), the direction of the sorted results, options: asc, desc; default: desc
- per\_page (int) (optional)
- text\_match (bool) (optional), if True, return matching search terms. See http://git. io/\_V1zRwa for more information
- **number** (*int*) (optional), number of search results to return; Default: -1 returns all available
- etag (*str*) (optional), ETag header value of the last request.

Returns generator of user search results

Return type UserSearchResult

```
set_client_id(id, secret)
```

Allow the developer to set their OAuth application credentials.

# **Parameters**

• id (*str*) – 20-character hexidecimal client\_id provided by GitHub

• **secret** (*str*) – 40-character hexidecimal client\_secret provided by GitHub

# set\_user\_agent (user\_agent)

Allow the user to set their own user agent string.

**Parameters user\_agent** (*str*) – string used to identify your application. Library default: "github3.py/{version}", e.g., "github3.py/1.0.0"

star (username, repo)

Star a repository.

Parameters

- **username** (*str*) (required), owner of the repo
- **repo** (*str*) (required), name of the repo

Returns True if successful, False otherwise

# Return type bool

**starred** (*sort=None*, *direction=None*, *number=-1*, *etag=None*) Iterate over repositories starred by the authenticated user.

Changed in version 1.0.0: This was split from iter\_starred and requires authentication.

#### **Parameters**

- **sort** (*str*) (optional), either 'created' (when the star was created) or 'updated' (when the repository was last pushed to)
- direction (str) (optional), either 'asc' or 'desc'. Default: 'desc'
- **number** (*int*) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of repositories

Return type ShortRepository>

starred\_by (username, sort=None, direction=None, number=-1, etag=None)
Iterate over repositories starred by username.

New in version 1.0: This was split from iter\_starred and requires the login parameter.

#### **Parameters**

- **username** (*str*) name of user whose stars you want to see
- **sort** (*str*) (optional), either 'created' (when the star was created) or 'updated' (when the repository was last pushed to)
- direction (*str*) (optional), either 'asc' or 'desc'. Default: 'desc'
- **number** (*int*) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of repositories

Return type ShortRepository

# subscriptions (number=-1, etag=None)

Iterate over repositories subscribed to by the authenticated user.

# **Parameters**

- **number** (*int*) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of repositories

Return type ShortRepository

subscriptions\_for(username, number=-1, etag=None)

Iterate over repositories subscribed to by username.

#### **Parameters**

- **username** (*str*) name of user whose subscriptions you want to see
- **number** (*int*) (optional), number of repositories to return. Default: -1 returns all repositories
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of subscribed repositories

Return type ShortRepository

#### **unfollow** (*username*)

Make the authenticated user stop following username.

**Parameters username** (*str*) – (required)

Returns True if successful, False otherwise

Return type bool

**unstar** (*username*, *repo*) Unstar username/repo.

#### **Parameters**

- **username** (*str*) (required), owner of the repo
- **repo** (*str*) (required), name of the repo

Returns True if successful, False otherwise

#### Return type bool

Update the profile of the authenticated user.

# Parameters

- **name** (*str*) e.g., 'John Smith', not login name
- email (*str*) e.g., 'john.smith@example.com'
- **blog** (*str*) e.g., 'http://www.example.com/jsmith/blog'
- company (str)-
- location (str)-
- hireable (bool) defaults to False
- bio (str) GitHub flavored markdown

Returns True if successful, False otherwise

# Return type bool

user (username)

Retrieve a User object for the specified user name.

**Parameters username** (*str*) – name of the user

Returns the user

Return type User

List only the authenticated user's issues.

Will not list organization's issues. See organization\_issues().

Changed in version 1.0: per\_page parameter added before number

Changed in version 0.9.0: The state parameter now accepts 'all' in addition to 'open' and 'closed'.

- Parameters
  - **filter** (*str*) accepted values: ('assigned', 'created', 'mentioned', 'subscribed') apidefault: 'assigned'
  - **state** (*str*) accepted values: ('all', 'open', 'closed') api-default: 'open'
  - labels (str) comma-separated list of label names, e.g., 'bug,ui,@high'
  - **sort** (*str*) accepted values: ('created', 'updated', 'comments') api-default: created
  - direction (str) accepted values: ('asc', 'desc') api-default: desc
  - **since** (datetime or str) (optional), Only issues after this date will be returned. This can be a *datetime* or an ISO8601 formatted date string, e.g., 2012-05-20T23:10:27Z
  - number (*int*) (optional), number of issues to return. Default: -1 returns all issues
  - etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of issues

Return type ShortIssue

# user\_teams (number=-1, etag=None)

Get the authenticated user's teams across all of organizations.

List all of the teams across all of the organizations to which the authenticated user belongs. This method requires user or repo scope when authenticating via OAuth.

**Returns** generator of teams

Return type ShortTeam

#### user\_with\_id(number)

Get the user's information with id number.

**Parameters number** (*int*) – the user's id number

Returns the user

Return type User

zen()

Return a quote from the Zen of GitHub.

Yet another API Easter Egg

Returns the zen of GitHub

**Return type** str (on Python 3, unicode on Python 2)

# 2.6.3 GitHubEnterprise Object

This has all of the same attributes as the *GitHub* object so for brevity's sake, I'm not listing all of it's inherited members.

```
class github3.github.GitHubEnterprise(url, username=", password=", token=", ver-
```

*ify=True*) An interface to a specific GitHubEnterprise instance.

For GitHub Enterprise users, this object will act as the public API to your instance. You must provide the URL to your instance upon initialization and can provide the rest of the login details just like in the *GitHub* object.

There is no need to provide the end of the url (e.g., /api/v3/), that will be taken care of by us.

If you have a self signed SSL for your local github enterprise you can override the validation by passing *ver*-*ify*=*False*.

# admin\_stats(option)

Retrieve statistics about this GitHub Enterprise instance.

**Parameters option** (*str*) – (required), accepted values: ('all', 'repos', 'hooks', 'pages', 'orgs', 'users', 'pulls', 'issues', 'milestones', 'gists', 'comments')

**Returns** the statistics

Return type dict

create\_user (*login*, *email*) Create a new user.

Note: This is only available for administrators of the instance.

# **Parameters**

- login (*str*) (required), The user's username.
- **email** (*str*) (required), The user's email address.

Returns created user

Return type ShortUser

# 2.6.4 GitHubStatus Object

# class github3.github.GitHubStatus

A sleek interface to the GitHub System Status API.

This will only ever return the JSON objects returned by the API.

```
api()
```

Retrieve API status.

# last\_message()

Retrieve the last message.

```
messages ()
Retrieve all messages.
```

status()

Retrieve overall status.

# 2.7 Issue

This part of the documentation covers the module which handles Issues and their related objects:

- IssueComment
- IssueEvent
- Milestone
- Label.

# 2.7.1 Issue Objects

```
class github3.issues.issue.Issue(json, session)
```

Object for the full representation of an Issue.

GitHub's API returns different amounts of information about issues based upon how that information is retrieved. This object exists to represent the full amount of information returned for a specific issue. For example, you would receive this class when calling *issue()*. To provide a clear distinction between the types of issues, github3.py uses different classes with different sets of attributes.

Changed in version 1.0.0.

This object has all of the same attributes as a ShortIssue as well as the following:

# body\_html

The HTML formatted body of this issue.

# body\_text

The plain-text formatted body of this issue.

# closed\_by

If the issue is closed, a ShortUser representing the user who closed the issue.

# add\_labels(\*args)

Add labels to this issue.

# Parameters args (str) - (required), names of the labels you wish to add

Returns list of labels

# Return type Label

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

```
json.loads(obj.as_json())
```

Returns this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

# Returns this object's attributes as a JSON string

#### Return type str

#### assign (username)

Assign user username to this issue.

This is a short cut for *edit* ().

**Parameters username** (*str*) – username of the person to assign this issue to

Returns True if successful, False, otherwise

# Return type bool

# close()

Close this issue.

Returns True if successful, False otherwise

Return type bool

# comment (id\_num)

Get a single comment by its id.

The catch here is that id is NOT a simple number to obtain. If you were to look at the comments on issue #15 in sigmavirus24/Todo.txt-python, the first comment's id is 4150787.

**Parameters id\_num** (*int*) – (required), comment id, see example above

Returns the comment identified by id\_num

Return type IssueComment

**comments** (*number=-1*, *sort=*", *direction=*", *since=None*) Iterate over the comments on this issue.

# **Parameters**

- **number** (*int*) (optional), number of comments to iterate over Default: -1 returns all comments
- **sort** (*str*) accepted valuees: ('created', 'updated') api-default: created
- direction (str) accepted values: ('asc', 'desc') Ignored without the sort parameter
- **since** (*datetime or string*) (optional), Only issues after this date will be returned. This can be a datetime or an ISO8601 formatted date string, e.g., 2012-05-20T23:10:27Z

Returns iterator of comments

Return type IssueComment

#### create\_comment (body)

Create a comment on this issue.

**Parameters body** (*str*) – (required), comment body

Returns the created comment

#### Return type IssueComment

edit (title=None, body=None, assignee=None, state=None, milestone=None, labels=None, assignees=None) Edit this issue.

un uns issue.

# Parameters

- title (*str*) title of the issue
- **body** (*str*) markdown formatted body (description) of the issue
- **assignee** (*str*) login name of user the issue should be assigned to
- **state** (*str*) accepted values: ('open', 'closed')
- **milestone** (*int*) the NUMBER (not title) of the milestone to assign this to<sup>1</sup>, or 0 to remove the milestone
- **labels** (*list*) list of labels to apply this to
- **assignees** (*list of strings*) (optional), login of the users to assign the issue to

Returns True if successful, False otherwise

#### Return type bool

# events (number=-1)

Iterate over events associated with this issue only.

**Parameters number** (*int*) – (optional), number of events to return. Default: -1 returns all events available.

Returns generator of events on this issues

Return type IssueEvent

#### from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

# is\_closed()

Check if the issue is closed.

Returns True if successful, False otherwise

# Return type bool

labels (number=-1, etag=None)

Iterate over the labels associated with this issue.

## Parameters

- **number** (*int*) (optional), number of labels to return. Default: -1 returns all labels applied to this issue.
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of labels on this issue

Return type Label

<sup>&</sup>lt;sup>1</sup> Milestone numbering starts at 1, i.e. the first milestone you create is 1, the second is 2, etc.

# lock()

Lock an issue.

**Returns** True if successful, False otherwise

Return type bool

#### new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# pull\_request()

Retrieve the pull request associated with this issue.

**Returns** the pull request associated with this issue

Return type PullRequest

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# remove\_all\_labels()

Remove all labels from this issue.

Returns the list of current labels (empty) if successful

Return type list

```
remove_label(name)
```

Remove label name from this issue.

**Parameters name** (*str*) – (required), name of the label to remove

Returns list of removed labels

Return type Label

# reopen()

Re-open a closed issue.

**Note:** This is a short cut to using *edit()*.

Returns True if successful, False otherwise

Return type bool

replace\_labels (*labels*) Replace all labels on this issue with labels.

**Parameters labels** (*list*) – label names

Returns list of labels

Return type Label

unlock()

Unlock an issue.

Returns True if successful, False otherwise

Return type bool

**class** github3.issues.comment.**IssueComment** (*json*, *session*) Representation of a comment left on an issue.

See also: http://developer.github.com/v3/issues/comments/

This object has the following attributes:

# author\_association

The association of the author (user) with the repository this issue belongs to.

#### body

The markdown formatted original text written by the author.

# body\_html

The HTML formatted comment body.

# body\_text

The plain-text formatted comment body.

#### created\_at

A datetime object representing the date and time when this comment was created.

# html\_url

The URL to view this comment in a browser.

# id

The unique identifier for this comment.

#### issue\_url

The URL of the parent issue in the API.

#### updated\_at

A datetime object representing the date and time when this comment was most recently updated.

#### user

A ShortUser representing the author of this comment.

## as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

# delete()

Delete this comment.

Returns bool

#### edit (body)

Edit this comment.

**Parameters body** (*str*) – (required), new body of the comment, Markdown formatted

#### Returns bool

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

refresh(conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

repos = [r for i in g.repositories\_by('kennethreitz')]
[r.refresh() for r in repos]

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# class github3.issues.event.IssueEvent (json, session)

Representation of an event from a specific issue.

This object will be instantiated from calling *events()* which calls https://developer.github.com/v3/issues/ events/#list-events-for-an-issue

See also: http://developer.github.com/v3/issues/events

This object has the following attributes:

# actor

A ShortUser representing the user who generated this event.

# commit\_id

The string SHA of a commit that referenced the parent issue. If there was no commit referencing this issue, then this will be None.

# commit\_url

The URL to retrieve commit information from the API for the commit that references the parent issue. If there was no commit, this will be None.

# created\_at

A datetime object representing the date and time this event occurred.

# event

The issue-specific action that generated this event. Some examples are:

- closed
- reopened
- subscribed
- merged
- referenced
- mentioned
- assigned

See this list of events for a full listing.

# id

The unique identifier for this event.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

## as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

#### Return type str

```
from_dict (json_dict, session)
```

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# **class** github3.issues.milestone.**Milestone**(*json*, *session*) Representation of milestones on a repository.

See also: http://developer.github.com/v3/issues/milestones/

This object has the following attributes:

# closed\_issues\_count

The number of closed issues in this milestone.

# created\_at

A datetime object representing the date and time when this milestone was created.

# creator

If present, a ShortUser representing the user who created this milestone.

#### description

The written description of this milestone and its purpose.

#### due\_on

If set, a datetime object representing the date and time when this milestone is due.

# id

The unique identifier of this milestone in GitHub.

#### number

The repository-local numeric identifier of this milestone. This starts at 1 like issues.

#### open\_issues\_count

The number of open issues still in this milestone.

# state

The state of this milestone, e.g., 'open' or 'closed'.

# title

The title of this milestone.

#### updated\_at

A datetime object representing the date and time when this milestone was last updated.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

# delete()

Delete this milestone.

Returns True if successful, False otherwise

# Return type bool

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

**from\_json** (*json*, *session*) Return an instance of this class formed from json.

```
labels (number=-1, etag=None)
Iterate over the labels of every associated issue.
```

Changed in version 0.9: Add etag parameter.

# **Parameters**

- **number** (*int*) (optional), number of labels to return. Default: -1 returns all available labels.
- etag (*str*) (optional), ETag header from a previous response

**Returns** generator of labels

Return type Label

# new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

#### ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

```
update (title=None, state=None, description=None, due_on=None)
Update this milestone.
```

All parameters are optional, but it makes no sense to omit all of them at once.

# Parameters

- title (*str*) (optional), new title of the milestone
- **state** (*str*) (optional), ('open', 'closed')
- **description** (*str*) (optional)
- due\_on (str) (optional), ISO 8601 time format: YYYY-MM-DDTHH:MM:SSZ

Returns True if successful, False otherwise

Return type bool

class github3.issues.label.Label(json, session)

A representation of a label object defined on a repository.

See also: http://developer.github.com/v3/issues/labels/

This object has the following attributes:

.. attribute:: color

The hexadecimeal representation of the background color of this label.

#### name

The name (display label) for this label.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

#### Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

# delete()

Delete this label.

Returns True if successfully deleted, False otherwise

# Return type bool

### from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

**from\_json** (*json*, *session*) Return an instance of this class formed from json.

new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

update (*name*, *color*) Update this label.

Parameters

- **name** (*str*) (required), new name of the label
- color (str) (required), color code, e.g., 626262, no leading '#'

Returns True if successfully updated, False otherwise

Return type bool

# 2.8 Models

This part of the documentation covers a lot of lower-level objects that are never directly seen or used by the user (developer). They are documented for future developers of this library.

# 2.8.1 Objects

```
class github3.models.GitHubCore (json, session)
The base object for all objects that require a session.
```

The *GitHubCore* object provides some basic attributes and methods to other sub-classes that are very useful to have.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

# Returns this object's attributes as a JSON string

Return type str

```
classmethod from_dict (json_dict, session)
```

Return an instance of this class formed from json\_dict.

# classmethod from\_json(json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

**refresh** (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

# Returns self

# 2.9 Notifications

This part of the documentation covers the *Thread*, *RepositorySubscription*, and *ThreadSubscription* objects.

# 2.9.1 Notification Objects

```
class github3.notifications.Thread(json, session)
```

Object representing a notification thread.

Changed in version 1.0.0: The comment, thread, and url attributes are no longer present because GitHub stopped returning the comment that caused the notification.

The is\_unread method was removed since it just returned the unread attribute.

This object has the following attributes:

# id

The unique identifier for this notification across all GitHub notifications.

#### last\_read\_at

A datetime object representing the date and time when the authenticated user last read this thread.

# reason

The reason the authenticated user is receiving this notification.

# repository

A ShortRepository this thread originated on.

#### subject

A dictionary with the subject of the notification, for example, which issue, pull request, or diff this is in relation to.

# unread

A boolean attribute indicating whether this thread has been read or not.

#### updated\_at

A datetime representing the date and time when this thread was last updated.

See also: http://developer.github.com/v3/activity/notifications/

#### as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

# delete\_subscription()

Delete subscription for this thread.

Returns True if successful, False otherwise

Return type bool

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

**from\_json** (*json*, *session*) Return an instance of this class formed from json.

#### mark()

Mark the thread as read.

Returns True if successful, False otherwise

Return type bool

#### new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

#### **Returns** int

# **refresh** (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

```
set_subscription (subscribed, ignored)
Set the user's subscription for this thread.
```

#### **Parameters**

- **subscribed** (*bool*) (required), determines if notifications should be received from this thread.
- **ignored** (*bool*) (required), determines if notifications should be ignored from this thread.

Returns new subscription

Return type ThreadSubscription

# subscription()

Check the status of the user's subscription to this thread.

**Returns** the subscription for this thread

Return type ThreadSubscription

# class github3.notifications.RepositorySubscription(json, session)

This object provides a representation of a thread subscription.

See also: developer.github.com/v3/activity/notifications/#get-a-thread-subscription

Changed in version 1.0.0: The is\_ignored and is\_subscribed methods were removed. Use the :attr'ignored' and *subscribed* attributes instead.

This object has the following attributes:

# created\_at

A datetime object representing the date and time the user was subscribed to the thread.

#### ignored

A boolean attribute indicating whether the user ignored this.

# reason

The reason the user is subscribed to the thread.

### repository\_url

The URL of the repository resource in the GitHub API.

#### subscribed

A boolean attribute indicating whether the user is subscribed or not.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

#### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

**Returns** this object's attributes as a JSON string

# Return type str

#### delete()

Delete the user's subscription to this thread.

Returns True if successful, False otherwise

## Return type bool

```
from_dict (json_dict, session)
    Return an instance of this class formed from json_dict.
```

**from\_json** (*json*, *session*) Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

# Returns self

```
set (subscribed, ignored)
```

Set the user's subscription for this subscription.

# Parameters

- **subscribed** (*bool*) (required), determines if notifications should be received from this thread.
- **ignored** (*bool*) (required), determines if notifications should be ignored from this thread.

```
class github3.notifications.ThreadSubscription (json, session) This object provides a representation of a thread subscription.
```

See also: developer.github.com/v3/activity/notifications/#get-a-thread-subscription

Changed in version 1.0.0: The is\_ignored and is\_subscribed methods were removed. Use the :attr'ignored' and *subscribed* attributes instead.

This object has the following attributes:

# created\_at

A datetime object representing the date and time the user was subscribed to the thread.

# ignored

A boolean attribute indicating whether the user ignored this.

#### reason

The reason the user is subscribed to the thread.

# subscribed

A boolean attribute indicating whether the user is subscribed or not.

# thread\_url

The URL of the thread resource in the GitHub API.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

Return type dict

### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

#### delete()

Delete the user's subscription to this thread.

Returns True if successful, False otherwise

# Return type bool

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

**from\_json** (*json*, *session*) Return an instance of this class formed from json.

new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

**refresh** (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

# Returns self

set (subscribed, ignored)

Set the user's subscription for this subscription.

# Parameters

- **subscribed** (*bool*) (required), determines if notifications should be received from this thread.
- **ignored** (*bool*) (required), determines if notifications should be ignored from this thread.

# 2.10 Organization

This section of the documentation covers:

- Organizations
- Teams

# 2.10.1 Organization Objects

```
class github3.orgs.Organization (json, session)
Object for the full representation of a Organization.
```

GitHub's API returns different amounts of information about orgs based upon how that information is retrieved. This object exists to represent the full amount of information returned for a specific org. For example, you would receive this class when calling *organization()*. To provide a clear distinction between the types of orgs, github3.py uses different classes with different sets of attributes.

Changed in version 1.0.0.

This object includes all attributes on ShortOrganization as well as the following:

# blog

If set, the URL of this organization's blog.

### company

The name of the company that is associated with this organization.

# created\_at

A datetime instance representing the time and date when this organization was created.

# email

The email address associated with this organization.

#### followers\_count

The number of users following this organization. Organizations no longer have followers so this number will always be 0.

# following\_count

The number of users this organization follows. Organizations no longer follow users so this number will always be 0.

# html\_url

The URL used to view this organization in a browser.

#### location

The location of this organization, e.g., New York, NY.

### name

The display name of this organization.

### public\_repos\_count

The number of public repositories owned by thi sorganization.

#### add\_member (username, team\_id)

Add username to team and thereby to this organization.

**Warning:** This method is no longer valid. To add a member to a team, you must now retrieve the team directly, and use the invite method.

**Warning:** This method is no longer valid. To add a member to a team, you must now retrieve the team directly, and use the invite method.

Any user that is to be added to an organization, must be added to a team as per the GitHub api.

Changed in version 1.0: The second parameter used to be team but has been changed to team\_id. This parameter is now required to be an integer to improve performance of this method.

### Parameters

- username (str) (required), login name of the user to be added
- team\_id (*int*) (required), team id

Returns True if successful, False otherwise

Return type bool

# add\_repository (repository, team\_id)

Add repository to team.

Changed in version 1.0: The second parameter used to be team but has been changed to team\_id. This parameter is now required to be an integer to improve performance of this method.

# **Parameters**

- **repository** (*str*) (required), form: 'user/repo'
- team\_id (*int*) (required), team id

Returns True if successful, False otherwise

# Return type bool

```
all_events (username, number=-1, etag=None)
```

Iterate over all org events visible to the authenticated user.

# **Parameters**

- **username** (*str*) (required), the username of the currently authenticated user.
- **number** (*int*) (optional), number of events to return. Default: -1 iterates over all events available.
- etag (*str*) (optional), ETag from a previous request to the same endpoint

# Returns generator of events

# Return type Event

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

# conceal\_member(username)

Conceal username's membership in this organization.

Parameters username (str) - username of the organization member to conceal

Returns True if successful, False otherwise

Return type bool

create\_project (name, body=")

Create a project for this organization.

If the client is authenticated and a member of the organization, this will create a new project in the organization.

# **Parameters**

- **name** (*str*) (required), name of the project
- **body** (*str*) (optional), the body of the project

**Returns** the new project

Return type Project

**create\_repository** (name, description=", homepage=", private=False, has\_issues=True, has\_wiki=True, team\_id=0, auto\_init=False, gitignore\_template=", license\_template=")

Create a repository for this organization.

If the client is authenticated and a member of the organization, this will create a new repository in the organization.

name should be no longer than 100 characters

### **Parameters**

• **name** (*str*) – (required), name of the repository

Warning: this should be no longer than 100 characters

- **description** (*str*) (optional)
- homepage (str) (optional)
- private (bool) (optional), If True, create a private repository. API default: False
- has\_issues (bool) (optional), If True, enable issues for this repository. API default: True
- **has\_wiki** (*bool*) (optional), If True, enable the wiki for this repository. API default: True
- team\_id (*int*) (optional), id of the team that will be granted access to this repository
- **auto\_init** (bool) (optional), auto initialize the repository.
- gitignore\_template (*str*) (optional), name of the template; this is ignored if auto\_int is False.
- **license\_template** (*str*) (optional), name of the license; this is ignored if auto\_int is False.

**Returns** the created repository

Return type Repository

# create\_team (name, repo\_names=[], permission='pull')

Create a new team and return it.

This only works if the authenticated user owns this organization.

**Parameters** 

- **name** (*str*) (required), name to be given to the team
- **repo\_names** (*list*) (optional) repositories, e.g. ['github/dotfiles']
- **permission** (*str*) (optional), options:
  - pull (default) members can not push or administer repositories accessible by this team
  - push members can push and pull but not administer repositories accessible by this team
- admin members can push, pull and administer repositories accessible by this team

Returns the created team

#### Return type Team

edit (billing\_email=None, company=None, email=None, location=None, name=None)
Edit this organization.

#### **Parameters**

- **billing\_email** (*str*) (optional) Billing email address (private)
- **company** (*str*) (optional)
- email (str) (optional) Public email address
- location (*str*) (optional)
- **name** (*str*) (optional)

Returns True if successful, False otherwise

# Return type bool

#### events (number=-1, etag=None)

Iterate over public events for this org (deprecated).

Deprecated since version 1.0.0: Use *public\_events()* instead.

#### Parameters

- **number** (*int*) (optional), number of events to return. Default: -1 iterates over all events available.
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of events

#### Return type Event

# from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### is\_member(username)

Check if the user named username is a member.

Parameters username (str) - name of the user you'd like to check

Returns True if successful, False otherwise

# Return type bool

#### is\_public\_member(username)

Check if the user named username is a public member.

Parameters username (str) - name of the user you'd like to check

**Returns** True if the user is a public member, False otherwise

#### Return type bool

**members** (*filter=None*, *role=None*, *number=-1*, *etag=None*) Iterate over members of this organization.

#### **Parameters**

- **filter** (*str*) (optional), filter members returned by this method. Can be one of: "2fa\_disabled", "all", . Default: "all". Filtering by "2fa\_disabled" is only available for organization owners with private repositories.
- **role** (*str*) (optional), filter members returned by their role. Can be one of: "all", "admin", "member". Default: "all".
- **number** (*int*) (optional), number of members to return. Default: -1 will return all available.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of members of this organization

Return type ShortUser

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

#### project (id, etag=None)

Return the organization project with the given ID.

Parameters id (int) - (required), ID number of the project

**Returns** requested project

Return type Project

# projects (number=-1, etag=None)

Iterate over projects for this organization.

### Parameters

- **number** (*int*) (optional), number of members to return. Default: -1 will return all available.
- etag(str) (optional), ETag from a previous request to the same endpoint

Returns generator of organization projects

Return type Project

#### public\_events (number=-1, etag=None)

Iterate over public events for this org.

# **Parameters**

• **number** (*int*) – (optional), number of events to return. Default: -1 iterates over all events available.

• etag(str) – (optional), ETag from a previous request to the same endpoint

**Returns** generator of public events

Return type Event

#### public\_members (number=-1, etag=None)

Iterate over public members of this organization.

#### Parameters

- **number** (*int*) (optional), number of members to return. Default: -1 will return all available.
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of public members

Return type ShortUser

#### publicize\_member(username)

Make username's membership in this organization public.

**Parameters username** (*str*) – the name of the user whose membership you wish to publicize

Returns True if successful, False otherwise

Return type bool

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# **refresh** (*conditional=False*)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

#### remove\_member (username)

Remove the user named username from this organization.

**Parameters username** (*str*) – name of the user to remove from the org

**Returns** True if successful, False otherwise

Return type bool

remove\_repository (repository, team\_id)

Remove repository from the team with team\_id.

**Parameters** 

- **repository** (*str*) (required), form: 'user/repo'
- team\_id (int) (required), the unique identifier of the team

Returns True if successful, False otherwise

Return type bool

**repositories** (*type=*", *number=-1*, *etag=None*)

Iterate over repos for this organization.

# **Parameters**

- **type** (*str*) (optional), accepted values: ('all', 'public', 'member', 'private', 'forks', 'sources'), API default: 'all'
- **number** (*int*) (optional), number of members to return. Default: -1 will return all available.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of repositories in this organization

```
Return type Repository
```

# team(team\_id)

Return the team specified by team\_id.

**Parameters team\_id** (*int*) – (required), unique id for the team

Returns the team identified by the id in this organization

# Return type Team

teams (number=-1, etag=None)

Iterate over teams that are part of this organization.

# **Parameters**

- **number** (*int*) (optional), number of teams to return. Default: -1 returns all available teams.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of this organization's teams

```
Return type ShortTeam
```

# class github3.orgs.Team(json, session)

Object representing a team in the GitHub API.

In addition to the attributes on a ShortTeam a Team has the following attribute:

#### created\_at

A datetime instance representing the time and date when this team was created.

#### members\_count

The number of members in this team.

#### organization

A ShortOrganization representing the organization this team belongs to.

#### repos\_count

The number of repositories this team can access.

# updated\_at

A datetime instance representing the time and date when this team was updated.

Please see GitHub's Team Documentation for more information.

# add\_member (username)

Add username to this team.

Parameters username (str) - the username of the user you would like to add to this team.

Returns True if successfully added, False otherwise

# Return type bool

# add\_repository (repository, permission=")

Add repository to this team.

If a permission is not provided, the team's default permission will be assigned, by GitHub.

# Parameters

- **repository** (*str*) (required), form: 'user/repo'
- **permission** (*str*) (optional), ('pull', 'push', 'admin')

Returns True if successful, False otherwise

# Return type bool

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

# delete()

Delete this team.

Returns True if successful, False otherwise

Return type bool

edit (*name*, *permission*=") Edit this team. **Parameters** 

- **name** (*str*) (required), the new name of this team
- **permission** (*str*) (optional), one of ('pull', 'push', 'admin')

Returns True if successful, False otherwise

Return type bool

```
from_dict (json_dict, session)
```

Return an instance of this class formed from json\_dict.

- **from\_json** (*json*, *session*) Return an instance of this class formed from json.
- has\_repository(repository)

Check if this team has access to repository.

**Parameters** repository (*str*) – (required), form: 'user/repo'

Returns True if the team can access the repository, False otherwise

#### Return type bool

# invite (username)

Invite the user to join this team.

This returns a dictionary like so:

{'state': 'pending', 'url': 'https://api.github.com/teams/...'}

**Parameters username** (*str*) – (required), login of user to invite to join this team.

**Returns** dictionary of the invitation response

# Return type dict

#### is\_member (username)

Check if login is a member of this team.

**Parameters username** (*str*) – (required), username name of the user

**Returns** True if the user is a member, False otherwise

#### Return type bool

```
members (role=None, number=-1, etag=None)
```

Iterate over the members of this team.

# Parameters

- **role** (*str*) (optional), filter members returned by their role in the team. Can be one of: "member", "maintainer", "all". Default: "all".
- **number** (*int*) (optional), number of users to iterate over. Default: -1 iterates over all values
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of the members of this team

# Return type ShortUser

# membership\_for(username)

Retrieve the membership information for the user.

**Parameters username** (*str*) – (required), name of the user

**Returns** dictionary with the membership

Return type dict

# new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# **refresh** (*conditional=False*)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

# Returns self

#### remove\_member(username)

Remove username from this team.

**Parameters username** (*str*) – (required), username of the member to remove

Returns True if successful, False otherwise

Return type bool

```
remove_repository(repository)
```

Remove repository from this team.

**Parameters** repository (*str*) – (required), form: 'user/repo'

Returns True if successful, False otherwise

Return type bool

#### **repositories** (*number=-1*, *etag=None*)

Iterate over the repositories this team has access to.

#### Parameters

- **number** (*int*) (optional), number of repos to iterate over. Default: -1 iterates over all values
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of repositories this team has access to

Return type ShortRepository

revoke\_membership(username)

```
Revoke this user's team membership.
```

Parameters username (str) - (required), name of the team member

Returns True if successful, False otherwise

Return type bool

# 2.11 Pull Request

This section of the documentation covers:

- PullRequest
- ReviewComment
- PullDestination
- PullFile

# 2.11.1 Pull Request Objects

**class** github3.pulls.**PullRequest** (*json*, *session*) Object for the full representation of a PullRequest.

GitHub's API returns different amounts of information about prs based upon how that information is retrieved. This object exists to represent the full amount of information returned for a specific pr. For example, you would receive this class when calling *pull\_request()*. To provide a clear distinction between the types of prs, github3.py uses different classes with different sets of attributes.

Changed in version 1.0.0.

This object has all of the same attributes as ShortPullRequest as well as the following:

### additions\_count

The number of lines of code added in this pull request.

deletions\_count

The number of lines of code deleted in this pull request.

# comments\_count

The number of comments left on this pull request.

# commits\_count

The number of commits included in this pull request.

# mergeable

A boolean attribute indicating whether GitHub deems this pull request is mergeable.

#### mergeable\_state

A string indicating whether this would be a 'clean' or 'dirty' merge.

#### merged

A boolean attribute indicating whether the pull request has been merged or not.

### merged\_by

An instance of ShortUser to indicate the user who merged this pull request. If this hasn't been merged or if *mergeable* is still being decided by GitHub this will be None.

### review\_comments\_count

The number of review comments on this pull request.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

# Return type dict

### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

**Returns** this object's attributes as a JSON string

### Return type str

### close()

Close this Pull Request without merging.

Returns True if successful, False otherwise

#### **Return type** bool

**commits** (*number=-1*, *etag=None*)

Iterate over the commits on this pull request.

#### **Parameters**

- **number** (*int*) (optional), number of commits to return. Default: -1 returns all available commits.
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of repository commit objects

# Return type ShortCommit

# create\_comment (body)

Create a comment on this pull request's issue.

**Parameters body** (str) – (required), comment body

**Returns** the comment that was created on the pull request

Return type IssueComment

**create\_review\_comment** (*body*, *commit\_id*, *path*, *position*) Create a review comment on this pull request. Note: All parameters are required by the GitHub API.

### **Parameters**

- **body** (*str*) The comment text itself
- commit\_id (str) The SHA of the commit to comment on
- **path** (*str*) The relative path of the file to comment on
- **position** (*int*) The line index in the diff to comment on.

Returns The created review comment.

Return type ReviewComment

# diff()

Return the diff.

**Returns** representation of the diff

#### Return type bytes

#### files (number=-1, etag=None)

Iterate over the files associated with this pull request.

### **Parameters**

- **number** (*int*) (optional), number of files to return. Default: -1 returns all available files.
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of pull request files

### **Return type** *PullFile*

# from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

### is\_merged()

Check to see if the pull request was merged.

Changed in version 1.0.0: This now always makes a call to the GitHub API. To avoid that, check *merged* before making this call.

**Returns** True if merged, False otherwise

# Return type bool

# issue()

Retrieve the issue associated with this pull request.

**Returns** the issue object that this pull request builds upon

Return type Issue

# issue\_comments (number=-1, etag=None)

Iterate over the issue comments on this pull request.

In this case, GitHub leaks implementation details. Pull Requests are really just Issues with a diff. As such, comments on a pull request that are not in-line with code, are technically issue comments.

### **Parameters**

- **number** (*int*) (optional), number of comments to return. Default: -1 returns all available comments.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of non-review comments on this pull request

Return type IssueComment

merge (commit\_message=None, sha=None, merge\_method='merge')

Merge this pull request.

Changed in version 1.0.0: The boolean squash parameter has been replaced with merge\_method which requires a string.

# **Parameters**

- commit\_message (str) (optional), message to be used for the merge commit
- **sha** (*str*) (optional), SHA that pull request head must match to merge.
- **merge\_method** (*str*) (optional), Change the merge method. Either 'merge', 'squash' or 'rebase'. Default is 'merge'.

Returns True if successful, False otherwise

Return type bool

Returns bool

### new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# patch()

Return the patch.

**Returns** bytestring representation of the patch

Return type bytes

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

refresh(conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

### reopen()

Re-open a closed Pull Request.

Returns True if successful, False otherwise

# Return type bool

### review\_comments (number=-1, etag=None)

Iterate over the review comments on this pull request.

#### **Parameters**

- **number** (*int*) (optional), number of comments to return. Default: -1 returns all available comments.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of review comments

Return type ReviewComment

#### **reviews** (*number=-1*, *etag=None*)

Iterate over the reviews associated with this pull request.

# **Parameters**

- **number** (*int*) (optional), number of reviews to return. Default: -1 returns all available files.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of reviews for this pull request

Return type PullReview

update (title=None, body=None, state=None, base=None, maintainer\_can\_modify=None)
Update this pull request.

#### **Parameters**

- **title** (*str*) (optional), title of the pull
- **body** (*str*) (optional), body of the pull request
- **state** (*str*) (optional), one of ('open', 'closed')
- **base** (str) (optional), Name of the branch on the current repository that the changes should be pulled into.
- **maintainer\_can\_modify** (*bool*) (optional), Indicates whether a maintainer is allowed to modify the pull request or not.

Returns True if successful, False otherwise

# Return type bool

# class github3.pulls.ReviewComment (json, session)

Object representing review comments left on a pull request.

Please see GitHub's Pull Comments Documentation for more information.

### id

The unique identifier for this comment across all GitHub review comments.

# author\_association

The role of the author of this comment on the repository.

# body

The Markdown formatted body of this comment.

# body\_html

The HTML formatted body of this comment.

# body\_text

The plain text formatted body of this comment.

# commit\_id

The SHA of current commit this comment was left on.

# created\_at

A datetime instance representing the date and time this comment was created.

# diff\_hunk

A string representation of the hunk of the diff where the comment was left.

# html\_url

The URL to view this comment in the webbrowser.

# links

A dictionary of relevant URLs usually returned in the \_links attribute.

# original\_commit\_id

The SHA of the original commit this comment was left on.

# original\_position

The original position within the diff that this comment was left on.

# pull\_request\_url

The URL to retrieve the pull request via the API.

### updated\_at

A datetime instance representing the date and time this comment was updated.

### user

A ShortUser instance representing the author of this comment.

### as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

# Returns this object's attributes as a JSON string

# Return type str

# delete()

Delete this comment.

Returns True if successful, False otherwise

# Return type bool

# edit(body)

Edit this comment.

**Parameters body** (*str*) – (required), new body of the comment, Markdown formatted

Returns True if successful, False otherwise

Return type bool

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

from\_json (json, session)

Return an instance of this class formed from json.

new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

### Returns int

# **refresh** (*conditional=False*)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

# Returns self

# **reply**(body)

Reply to this review comment with a new review comment.

**Parameters body** (str) – The text of the comment.

Returns The created review comment.

Return type ReviewComment

# class github3.pulls.PullDestination(json, session)

The object that represents a pull request destination.

This is the base class for the Head and Base objects. Each has identical attributes to this object.

Please see GitHub's Pull Request Documentation for more information.

#### ref

The full reference string for the git object

### label

The label for the destination (e.g., 'master', 'mybranch')

# user

If provided, a ShortUser instance representing the owner of the destination

sha

The SHA of the commit at the head of the destination

#### repository

A ShortRepository representing the repository containing this destination

# repo

A tuple containing the login and repository name, e.g., ('sigmavirus24', 'github3.py')

This attribute is generated by github3.py and may be deprecated in the future.

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

**Returns** this object's attributes as a JSON string

Return type str

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

# new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

repos = [r for i in g.repositories\_by('kennethreitz')]
[r.refresh() for r in repos]

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# class github3.pulls.PullFile(json, session)

The object that represents a file in a pull request.

Please see GitHub's Pull Request Files Documentation for more information.

# additions\_count

The number of additions made to this file

# blob\_url

The API resource used to retrieve the blob for this file

# changes\_count

The number of changes made to this file

# contents\_url

The API resource to view the raw contents of this file

# deletions\_count

The number of deletions made to this file

### filename

The name of this file

# patch

The patch generated by this

# raw\_url

The API resource to view the raw diff of this file

### sha

The SHA of the commit that this file belongs to

### status

The string with the status of the file, e.g., 'added'

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

### **Returns** this object's attributes as a JSON string

#### Return type str

#### contents()

Return the contents of the file.

Returns An object representing the contents of this file

Return type Contents

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

# Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# 2.12 Repository

This part of the documentation covers:

- Repository
- StarredRepository
- Asset
- Branch
- Contents
- Deployment
- DeploymentStatus
- Hook
- ImportedIssue
- PagesInfo
- PagesBuild
- Release
- RepoTag
- RepoComment
- RepoCommit
- Comparison
- Status
- CombinedStatus
- ContributorStats

None of these objects should be instantiated directly by the user (developer). These are here for reference only.

When listing repositories in any context, GitHub refuses to return a number of attributes, e.g., source and parent. If you require these, call the refresh method on the repository object to make a second call to the API and retrieve those attributes.

More information for about this class can be found in the official documentation and in various other sections of the GitHub documentation.

# 2.12.1 Repository Objects

class github3.repos.repo.Repository(json, session)

This organizes the full representation of a single Repository.

The full representation of a Repository is not returned in collections but instead in individual requests, e.g., repository().

This object has all the same attributes as ShortRepository as well as:

# archived

A boolean attribute that describes whether the current repository has been archived or not.

# clone\_url

This is the URL that can be used to clone the repository via HTTPS, e.g., https://github.com/sigmavirus24/github3.py.git.

# created\_at

A parsed datetime object representing the date the repository was created.

# default\_branch

This is the default branch of the repository as configured by its administrator(s).

# forks\_count

This is the number of forks of the repository.

### git\_url

This is the URL that can be used to clone the repository via the Git protocol, e.g., git://github.com/sigmavirus24/github3.py.

### has\_downloads

This is a boolean attribute that conveys whether or not the repository has downloads.

# has\_issues

This is a boolean attribute that conveys whether or not the repository has issues.

# has\_pages

This is a boolean attribute that conveys whether or not the repository has pages.

### has\_wiki

This is a boolean attribute that conveys whether or not the repository has a wiki.

### homepage

This is the administrator set homepage URL for the project. This may not be provided.

### language

This is the language GitHub has detected for the repository.

# original\_license

This is the ShortLicense returned as part of the repository. To retrieve the most recent license, see the *license()* method.

### mirror\_url

The URL that GitHub is mirroring the repository from.

# network\_count

The size of the repository's "network".

# open\_issues\_count

The number of issues currently open on the repository.

# parent

A representation of the parent repository as ShortRepository. If this Repository has no parent then this will be None.

# pushed\_at

A parsed datetime object representing the date a push was last made to the repository.

# size

The size of the repository.

# source

A representation of the source repository as ShortRepository. If this Repository has no source then this will be None.

# ssh\_url

This is the URL that can be used to clone the repository via the SSH protocol, e.g., ssh@github.com:sigmavirus24/github3.py.git.

# stargazers\_count

The number of people who have starred this repository.

# subscribers\_count

The number of people watching (or who have subscribed to notifications about) this repository.

### svn\_url

This is the URL that can be used to clone the repository via SVN, e.g., ssh@github. com:sigmavirus24/github3.py.git.

### updated\_at

A parsed datetime object representing the date a the repository was last updated by its administrator(s).

### watchers\_count

The number of people watching this repository.

See also: http://developer.github.com/v3/repos/

### add\_collaborator(username)

Add username as a collaborator to a repository.

Parameters username (str or User) – (required), username of the user

Returns True if successful, False otherwise

# **Return type**

**archive** (*format*, *path=*", *ref=*'*master*')

Get the tarball or zipball archive for this repo at ref.

See: http://developer.github.com/v3/repos/contents/#get-archive-link

# Parameters

- **format** (*str*) (required), accepted values: ('tarball', 'zipball')
- **path** (*str*, file) (optional), path where the file should be saved to, default is the filename provided in the headers and will be written in the current directory. it can take a file-like object as well
- **ref** (*str*) (optional)

Returns True if successful, False otherwise

### Return type bool

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

Return type str

# asset (*id*)

Return a single asset.

**Parameters id** (*int*) – (required), id of the asset

**Returns** the asset

Return type Asset

# assignees (number=-1, etag=None)

Iterate over all assignees to which an issue may be assigned.

### **Parameters**

- **number** (*int*) (optional), number of assignees to return. Default: -1 returns all available assignees
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of users

Return type ShortUser

#### **blob** (*sha*)

Get the blob indicated by sha.

**Parameters** sha (str) – (required), sha of the blob

Returns the git blob

Return type Blob

#### branch (name)

Get the branch name of this repository.

Parameters name (str) - (required), branch name

Returns the branch

Return type Branch

**branches** (*number=-1*, *protected=False*, *etag=None*) Iterate over the branches in this repository.

# **Parameters**

- **number** (*int*) (optional), number of branches to return. Default: -1 returns all branches
- protected (bool) (optional), True lists only protected branches. Default: False
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of branches

### Return type Branch

# code\_frequency(number=-1, etag=None)

Iterate over the code frequency per week.

New in version 0.7.

Returns a weekly aggregate of the number of additions and deletions pushed to this repository.

**Note:** All statistics methods may return a 202. On those occasions, you will not receive any objects. You should store your iterator and check the new last\_status attribute. If it is a 202 you should wait before re-requesting.

### **Parameters**

- **number** (*int*) (optional), number of weeks to return. Default: -1 returns all weeks
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of lists [seconds\_from\_epoch, additions, deletions]

# Return type list

**collaborators** (*number=-1*, *etag=None*)

Iterate over the collaborators of this repository.

### **Parameters**

- **number** (*int*) (optional), number of collaborators to return. Default: -1 returns all comments
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of collaborator users

### Return type ShortUser

**comments** (*number=-1*, *etag=None*)

Iterate over comments on all commits in the repository.

### Parameters

- **number** (*int*) (optional), number of comments to return. Default: -1 returns all comments
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of comments on commits

Return type RepoComment

### commit (sha)

Get a single (repo) commit.

See git\_commit () for the Git Data Commit.

**Parameters sha** (str) – (required), sha of the commit

Returns the commit

Return type RepoCommit

commit\_activity (number=-1, etag=None)

Iterate over last year of commit activity by week.

New in version 0.7.

See: http://developer.github.com/v3/repos/statistics/

**Note:** All statistics methods may return a 202. On those occasions, you will not receive any objects. You should store your iterator and check the new last\_status attribute. If it is a 202 you should wait before re-requesting.

### **Parameters**

- **number** (*int*) (optional), number of weeks to return. Default -1 will return all of the weeks.
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of dictionaries

Return type dict

### commit\_comment (comment\_id)

Get a single commit comment.

```
Parameters comment_id (int) - (required), id of the comment used by GitHub
```

Returns the comment on the commit

Return type RepoComment

Iterate over commits in this repository.

- **sha** (*str*) (optional), sha or branch to start listing commits from
- path (*str*) (optional), commits containing this path will be listed
- **author** (*str*) (optional), GitHub login, real name, or email to filter commits by (using commit author)
- **number** (*int*) (optional), number of comments to return. Default: -1 returns all comments
- etag(str) (optional), ETag from a previous request to the same endpoint
- **since** (datetime or str) (optional), Only commits after this date will be returned. This can be a datetime or an ISO8601 formatted date string.

- **until** (datetime or str) (optional), Only commits before this date will be returned. This can be a datetime or an ISO8601 formatted date string.
- per\_page (int) (optional), commits listing page size

Returns generator of commits

Return type RepoCommit

compare\_commits (base, head)

Compare two commits.

Parameters

- **base** (*str*) (required), base for the comparison
- head (str) (required), compare this against base

Returns the comparison of the commits

Return type Comparison

contributor\_statistics (number=-1, etag=None)

Iterate over the contributors list.

New in version 0.7.

See also: http://developer.github.com/v3/repos/statistics/

**Note:** All statistics methods may return a 202. On those occasions, you will not receive any objects. You should store your iterator and check the new last\_status attribute. If it is a 202 you should wait before re-requesting.

#### **Parameters**

- **number** (*int*) (optional), number of weeks to return. Default -1 will return all of the weeks.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of contributor statistics for each contributor

Return type ContributorStats

**contributors** (*anon=False*, *number=-1*, *etag=None*) Iterate over the contributors to this repository.

#### **Parameters**

- anon (bool) (optional), True lists anonymous contributors as well
- **number** (*int*) (optional), number of contributors to return. Default: -1 returns all contributors
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of contributor users

Return type Contributor

create\_blob (content, encoding) Create a blob with content.

- **content** (*str*) (required), content of the blob
- encoding (*str*) (required), ('base64', 'utf-8')

Returns string of the SHA returned

**Returns** str (on Python 3, unicode on Python 2)

create\_comment (body, sha, path=None, position=None, line=1)
Create a comment on a commit.

# Parameters

- **body** (*str*) (required), body of the message
- **sha** (*str*) (required), commit id
- **path** (*str*) (optional), relative path of the file to comment on
- **position** (*str*) (optional), line index in the diff to comment on
- line (*int*) (optional), line number of the file to comment on, default: 1

**Returns** the created comment

#### Return type RepoComment

**create\_commit** (*message*, *tree*, *parents*, *author=None*, *committer=None*) Create a commit on this repository.

### **Parameters**

- **message** (*str*) (required), commit message
- tree (str) (required), SHA of the tree object this commit points to
- **parents** (*list*) (required), SHAs of the commits that were parents of this commit. If empty, the commit will be written as the root commit. Even if there is only one parent, this should be an array.
- **author** (*dict*) (optional), if omitted, GitHub will use the authenticated user's credentials and the current time. Format: {'name': 'Committer Name', 'email': 'name@example.com', 'date': 'YYYY-MM-DDTHH:MM:SS+HH:00'}
- **committer** (*dict*) (optional), if ommitted, GitHub will use the author parameters. Should be the same format as the author parameter.

Returns the created commit

# Return type Commit

**create\_deployment** (*ref, required\_contexts=None, payload=", auto\_merge=False, description=", environment=None*)

Create a deployment.

- **ref** (*str*) (required), The ref to deploy. This can be a branch, tag, or sha.
- **required\_contexts** (*list*) Optional array of status contexts verified against commit status checks. To bypass checking entirely pass an empty array. Default: []
- **payload** (*str*) Optional JSON payload with extra information about the deployment. Default: ""
- **auto\_merge** (bool) Optional parameter to merge the default branch into the requested deployment branch if necessary. Default: False

- **description** (*str*) Optional short description. Default: ""
- **environment** (*str*) Optional name for the target deployment environment (e.g., production, staging, qa). Default: "production"

**Returns** the created deployment

Return type Deployment

create\_file (path, message, content, branch=None, committer=None, author=None)
Create a file in this repository.

See also: http://developer.github.com/v3/repos/contents/#create-a-file

# **Parameters**

- **path** (*str*) (required), path of the file in the repository
- **message** (*str*) (required), commit message
- **content** (*bytes*) (required), the actual data in the file
- **branch** (*str*) (optional), branch to create the commit on. Defaults to the default branch of the repository
- **committer** (*dict*) (optional), if no information is given the authenticated user's information will be used. You must specify both a name and email.
- **author** (*dict*) (optional), if omitted this will be filled in with committer information. If passed, you must specify both a name and email.

**Returns** dictionary of contents and commit for created file

Return type Contents, Commit

# create\_fork (organization=None)

Create a fork of this repository.

**Parameters organization** (*str*) – (required), login for organization to create the fork under

Returns the fork of this repository

# Return type Repository

# create\_hook (name, config, events=['push'], active=True)

Create a hook on this repository.

### Parameters

- **name** (*str*) (required), name of the hook
- config (dict) (required), key-value pairs which act as settings for this hook
- events (list) (optional), events the hook is triggered for
- active (bool) (optional), whether the hook is actually triggered

Returns the created hook

#### **Return type** Hook

**create\_issue** (*title*, *body=None*, *assignee=None*, *milestone=None*, *labels=None*, *assignees=None*) Create an issue on this repository.

#### Parameters

• title (*str*) – (required), title of the issue

- **body** (*str*) (optional), body of the issue
- **assignee** (*str*) (optional), login of the user to assign the issue to
- milestone (*int*) (optional), id number of the milestone to attribute this issue to (e.g. m is a *Milestone* object, m.number is what you pass here.)
- **labels** ([str]) (optional), labels to apply to this issue
- **assignees** ([str]) (optional), login of the users to assign the issue to

**Returns** the created issue

# Return type ShortIssue

**create\_key** (*title*, *key*, *read\_only=False*) Create a deploy key.

# **Parameters**

- title (*str*) (required), title of key
- **key** (*str*) (required), key text
- read\_only (bool) (optional), restrict key access to read-only, default is False

**Returns** the created key

# Return type Key

create\_label (name, color)

Create a label for this repository.

### **Parameters**

- **name** (*str*) (required), name to give to the label
- **color** (*str*) (required), value of the color to assign to the label, e.g., '#fafafa' or 'fafafa' (the latter is what is sent)

**Returns** the created label

# Return type Label

**create\_milestone** (*title*, *state=None*, *description=None*, *due\_on=None*) Create a milestone for this repository.

### Parameters

- title (*str*) (required), title of the milestone
- **state** (*str*) (optional), state of the milestone, accepted values: ('open', 'closed'), default: 'open'
- **description** (*str*) (optional), description of the milestone
- due\_on (str) (optional), ISO 8601 formatted due date

Returns the created milestone

Return type Milestone

# create\_project (name, body=None)

Create a project for this repository.

# **Parameters**

• **name** (*str*) – (required), name of the project

• **body** (*str*) – (optional), body of the project

**Returns** the created project

Return type Project

create\_pull(title, base, head, body=None)

Create a pull request of head onto base branch in this repo.

#### **Parameters**

- **title** (*str*) (required)
- **base** (*str*) (required), e.g., 'master'
- head (str) (required), e.g., 'username:branch'
- **body** (*str*) (optional), markdown formatted description

Returns the created pull request

```
Return type ShortPullRequest
```

#### create\_pull\_from\_issue(issue, base, head)

Create a pull request from issue #"issue".

### **Parameters**

- **issue** (*int*) (required), issue number
- **base** (*str*) (required), e.g., 'master'
- head (str) (required), e.g., 'username:branch'

Returns the created pull request

Return type ShortPullRequest

# create\_ref (ref, sha)

Create a reference in this repository.

#### **Parameters**

- **ref** (*str*) (required), fully qualified name of the reference, e.g. refs/heads/ master. If it doesn't start with refs and contain at least two slashes, GitHub's API will reject it.
- **sha** (*str*) (required), SHA1 value to set the reference to

Returns the created ref

Return type Reference

**create\_release** (*tag\_name*, *target\_commitish=None*, *name=None*, *body=None*, *draft=False*, *prere-lease=False*)

Create a release for this repository.

- tag\_name (*str*) (required), name to give to the tag
- target\_commitish (*str*) (optional), vague concept of a target, either a SHA or a branch name.
- **name** (*str*) (optional), name of the release
- **body** (str) (optional), description of the release
- draft (bool) (optional), whether this release is a draft or not

• prerelease (bool) – (optional), whether this is a prerelease or not

**Returns** the created release

Return type *Release* 

**create\_status** (*sha*, *state*, *target\_url=None*, *description=None*, *context='default'*) Create a status object on a commit.

# **Parameters**

- **sha** (*str*) (required), SHA of the commit to create the status on
- **state** (*str*) (required), state of the test; only the following are accepted: 'pending', 'success', 'error', 'failure'
- target\_url (*str*) (optional), URL to associate with this status.
- **description** (*str*) (optional), short description of the status
- **context** (*str*) (optional), A string label to differentiate this status from the status of other systems

**Returns** the created status

Return type Status

**create\_tag** (*tag*, *message*, *sha*, *obj\_type*, *tagger*, *lightweight=False*) Create a tag in this repository.

By default, this method creates an annotated tag. If you wish to create a lightweight tag instead, pass lightweight=True.

If you are creating an annotated tag, this method makes **2 calls** to the API:

- 1. Creates the tag object
- 2. Creates the reference for the tag

This behaviour is required by the GitHub API.

# Parameters

- **tag** (*str*) (required), name of the tag
- **message** (*str*) (required), tag message
- **sha** (*str*) (required), SHA of the git object this is tagging
- **obj\_type** (*str*) (required), type of object being tagged, e.g., 'commit', 'tree', 'blob'
- **tagger** (*dict*) (required), containing the name, email of the tagger and the date it was tagged
- **lightweight** (*bool*) (optional), if False, create an annotated tag, otherwise create a lightweight tag (a Reference).

**Returns** if creating a lightweight tag, this will return a *Reference*, otherwise it will return a *Tag* 

Return type Tag or Reference

**create\_tree** (*tree*, *base\_tree=None*) Create a tree on this repository.

- **tree** (*list*) (required), specifies the tree structure. Format: [{'path': 'path/file', 'mode': 'filemode', 'type': 'blob or tree', 'sha': '44bfc6d...'}]
- **base\_tree** (*str*) (optional), SHA1 of the tree you want to update with new data

Returns the created tree

**Return type** *Tree* 

### delete()

Delete this repository.

Returns True if successful, False otherwise

# Return type bool

### delete\_key(key\_id)

Delete the key with the specified id from your deploy keys list.

Returns True if successful, False otherwise

# Return type bool

# delete\_subscription()

Delete the user's subscription to this repository.

Returns True if successful, False otherwise

# Return type bool

# **deployment** (*id*)

Retrieve the deployment identified by id.

**Parameters** id (*int*) – (required), id for deployments.

**Returns** the deployment

# Return type Deployment

**deployments** (*number=-1*, *etag=None*)

Iterate over deployments for this repository.

# **Parameters**

- **number** (*int*) (optional), number of deployments to return. Default: -1, returns all available deployments
- etag (str) (optional), ETag from a previous request for all deployments

Returns generator of deployments

Return type Deployment

**directory\_contents** (*directory\_path*, *ref=None*, *return\_as=<class 'list'>*)

Get the contents of each file in directory\_path.

If the path provided is actually a directory, you will receive a list back of the form:

```
[('filename.md', Contents(...)),
('github.py', Contents(...)),
# ...
('fiz.py', Contents(...))]
```

You can either then transform it into a dictionary:

contents = dict(repo.directory\_contents('path/to/dir/'))

Or you can use the return\_as parameter to have it return a dictionary for you:

contents = repo.directory\_contents('path/to/dir/', return\_as=dict)

#### **Parameters**

- **path** (*str*) (required), path to file, e.g. github3/repos/repo.py
- **ref** (*str*) (optional), the string name of a commit/branch/tag. Default: master
- return\_as (optional), how to return the directory's contents. Default: list

**Returns** list of tuples of the filename and the Contents returned

# Return type [(str, Contents)]

#### **Parameters**

- **name** (*str*) (required), name of the repository
- **description** (*str*) (optional), If not None, change the description for this repository. API default: None leave value unchanged.
- homepage (*str*) (optional), If not None, change the homepage for this repository. API default: None - leave value unchanged.
- **private** (*bool*) (optional), If True, make the repository private. If False, make the repository public. API default: None leave value unchanged.
- has\_issues (bool) (optional), If True, enable issues for this repository. If False, disable issues for this repository. API default: None leave value unchanged.
- has\_wiki (bool) (optional), If True, enable the wiki for this repository. If False, disable the wiki for this repository. API default: None leave value unchanged.
- has\_downloads (bool) (optional), If True, enable downloads for this repository. If False, disable downloads for this repository. API default: None leave value unchanged.
- **default\_branch** (*str*) (optional), If not None, change the default branch for this repository. API default: None leave value unchanged.
- **archived** (*bool*) (optional), If not None, toggle the archived attribute on the repository to control whether it is archived or not.

Returns True if successful, False otherwise

# Return type bool

events (number=-1, etag=None) Iterate over events on this repository.

#### **Parameters**

- **number** (*int*) (optional), number of events to return. Default: -1 returns all available events
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of events

# Return type Event

file\_contents(path, ref=None)

Get the contents of the file pointed to by path.

# **Parameters**

- **path** (*str*) (required), path to file, e.g. github3/repos/repo.py
- **ref** (*str*) (optional), the string name of a commit/branch/tag. Default: master

**Returns** the contents of the file requested

# Return type Contents

**forks** (*sort=*", *number=-1*, *etag=None*) Iterate over forks of this repository.

# **Parameters**

- **sort** (*str*) (optional), accepted values: ('newest', 'oldest', 'watchers'), API default: 'newest'
- number (*int*) (optional), number of forks to return. Default: -1 returns all forks
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of forks of this repository

Return type ShortRepository

### from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

**from\_json** (*json*, *session*) Return an instance of this class formed from json.

git\_commit (sha)

Get a single (git) commit.

**Parameters** sha (*str*) – (required), sha of the commit

Returns the single commit data from git

Return type Commit

#### **hook** (*hook\_id*)

Get a single hook.

**Parameters** hook\_id (*int*) – (required), id of the hook

Returns the hook

#### Return type Hook

**hooks** (*number=-1*, *etag=None*) Iterate over hooks registered on this repository.

#### **Parameters**

- number (*int*) (optional), number of hoks to return. Default: -1 returns all hooks
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of hooks

Return type Hook

# ignore()

Ignore notifications from this repository for the user.

New in version 1.0.

This replaces Repository#set\_subscription.

Returns the new repository subscription

Return type :class:~github3.notifications.RepositorySubscription'

See also: https://gist.github.com/jonmagic/5282384165e0f86ef105

# **Parameters**

- **title** (*string*) (required) Title of issue
- **body** (*string*) (required) Body of issue
- created\_at (datetime or str) (required) Creation timestamp
- **assignee** (*string*) (optional) Username to assign issue to
- milestone (*int*) (optional) Milestone ID
- closed (boolean) (optional) Status of issue is Closed if True
- **labels** (*list*) (optional) List of labels containing string names
- **comments** (*list*) (optional) List of dictionaries which contain created\_at and body attributes

**Returns** the imported issue

Return type ImportedIssue

### imported\_issue (imported\_issue\_id)

Retrieve imported issue specified by imported issue id.

### **Parameters** imported\_issue\_id (*int*) – (required) id of imported issue

**Returns** the imported issue

Return type ImportedIssue

imported\_issues(number=-1, since=None, etag=None)

Retrieve the collection of imported issues via the API.

See also: https://gist.github.com/jonmagic/5282384165e0f86ef105

# Parameters

- **number** (*int*) (optional), number of imported issues to return. Default: -1 returns all branches
- **since** (optional), Only imported issues after this date will be returned. This can be a datetime instance, ISO8601 formatted date string, or a string formatted like so: 2016-02-04 i.e. %Y-%m-%d
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of imported issues

Return type ImportedIssue

# is\_assignee (username)

Check if the user can be assigned an issue on this repository.

Parameters username (str or User) - name of the user to check

Returns bool

### is\_collaborator(username)

Check to see if username is a collaborator on this repository.

**Parameters username** (str or *User*) – (required), login for the user

Returns True if successful, False otherwise

# Return type bool

# **issue**(*number*)

Get the issue specified by number.

**Parameters** number (*int*) – (required), number of the issue on this repository

Returns the issue

Return type Issue

issue\_events(number=-1, etag=None)

Iterate over issue events on this repository.

# Parameters

- **number** (*int*) (optional), number of events to return. Default: -1 returns all available events
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of events on issues

### Return type IssueEvent

Changed in version 0.9.0: The state parameter now accepts 'all' in addition to 'open' and 'closed'.

- milestone (*int*) (optional), 'none', or '\*'
- **state** (*str*) (optional), accepted values: ('all', 'open', 'closed')
- **assignee** (*str*) (optional), 'none', '\*', or login name
- **mentioned** (*str*) (optional), user's login name
- labels (*str*) (optional), comma-separated list of labels, e.g. 'bug,ui,@high'
- **sort** (optional), accepted values: ('created', 'updated', 'comments', 'created')
- direction (*str*) (optional), accepted values: ('asc', 'desc')
- **since** (datetime or str) (optional), Only issues after this date will be returned. This can be a datetime or an ISO8601 formatted date string, e.g., 2012-05-20T23:10:27Z
- **number** (*int*) (optional), Number of issues to return. By default all issues are returned
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of issues

Return type ShortIssue

# key(id\_num)

Get the specified deploy key.

**Parameters id\_num** (*int*) – (required), id of the key

**Returns** the deploy key

# Return type Key

**keys** (*number=-1*, *etag=None*) Iterate over deploy keys on this repository.

# **Parameters**

- **number** (*int*) (optional), number of keys to return. Default: -1 returns all available keys
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of keys

# **Return type** Key

label(name)

Get the label specified by name.

**Parameters name** (*str*) – (required), name of the label

Returns the label

Return type Label

**labels** (*number=-1*, *etag=None*)

Iterate over labels on this repository.

# Parameters

- **number** (*int*) (optional), number of labels to return. Default: -1 returns all available labels
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of labels

Return type Label

languages (number=-1, etag=None)

Iterate over the programming languages used in the repository.

#### Parameters

- **number** (*int*) (optional), number of languages to return. Default: -1 returns all used languages
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of tuples

**Return type** tuple

# latest\_pages\_build()

Get the build information for the most recent Pages build.

**Returns** the information for the most recent build

# Return type PagesBuild

### latest\_release()

Get the latest release.

Draft releases and prereleases are not returned by this endpoint.

Returns the release

Return type Release

# license()

Get the contents of a license for the repo.

Returns the license

# Return type RepositoryLicense

# mark\_notifications (last\_read=")

Mark all notifications in this repository as read.

**Parameters last\_read** (*str*) – (optional), Describes the last point that notifications were checked. Anything updated since this time will not be updated. Default: Now. Expected in ISO 8601 format: YYYY-MM-DDTHH:MM:SSZ. Example: "2012-10-09T23:39:01Z".

Returns True if successful, False otherwise

# Return type bool

```
merge (base, head, message=")
```

Perform a merge from head into base.

### **Parameters**

- **base** (*str*) (required), where you're merging into
- head (*str*) (required), where you're merging from
- **message** (*str*) (optional), message to be used for the commit

Returns the commit resulting from the merge

# Return type RepoCommit

# milestone (number)

Get the milestone indicated by number.

Parameters number (int) - (required), unique id number of the milestone

Returns the milestone

Return type Milestone

**milestones** (*state=None*, *sort=None*, *direction=None*, *number=-1*, *etag=None*) Iterate over the milestones on this repository.

- **state** (*str*) (optional), state of the milestones, accepted values: ('open', 'closed')
- **sort** (*str*) (optional), how to sort the milestones, accepted values: ('due\_date', 'completeness')
- **direction** (*str*) (optional), direction to sort the milestones, accepted values: ('asc', 'desc')
- **number** (*int*) (optional), number of milestones to return. Default: -1 returns all milestones

• etag (str) - (optional), ETag from a previous request to the same endpoint

#### **Returns** generator of milestones

Return type Milestone

### **network\_events** (*number=-1*, *etag=None*)

Iterate over events on a network of repositories.

#### Parameters

- number (int) (optional), number of events to return. Default: -1 returns all available events
- etag(str) (optional), ETag from a previous request to the same endpoint

#### **Returns** generator of events

# Return type Event

### new\_session()

Generate a new session.

**Returns** A brand new session

# Return type GitHubSession

**notifications** (*all=False*, *participating=False*, *since=None*, *number=-1*, *etag=None*) Iterate over the notifications for this repository.

#### **Parameters**

- all (bool) (optional), show all notifications, including ones marked as read
- **participating** (bool) (optional), show only the notifications the user is participating in directly
- **since** (datetime or str) (optional), filters out any notifications updated before the given time. This can be a *datetime* or an *ISO8601* formatted date string, e.g., 2012-05-20T23:10:27Z
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of notification threads

#### Return type Thread

#### pages()

Get information about this repository's pages site.

**Returns** information about this repository's GitHub pages site

#### Return type PagesInfo

#### pages\_builds (number=-1, etag=None)

Iterate over pages builds of this repository.

#### Parameters

- **number** (*int*) (optional) the number of builds to return
- etag (str) (optional), ETag value from a previous request

Returns generator of builds

```
Return type PagesBuild
```

project (id, etag=None)

Return the organization project with the given ID.

Parameters id (int) - (required), ID number of the project

**Returns** the project

Return type Project

projects (number=-1, etag=None)
Iterate over projects for this organization.

### **Parameters**

- **number** (*int*) (optional), number of members to return. Default: -1 will return all available.
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of projects

Return type Project

# pull\_request (number)

Get the pull request indicated by number.

**Parameters number** (*int*) – (required), number of the pull request.

Returns the pull request

# Return type PullRequest

pull\_requests (state=None, head=None, base=None, sort='created', direction='desc', number=-

*1*, etag=None)

List pull requests on repository.

Changed in version 0.9.0: The state parameter now accepts 'all' in addition to 'open' and 'closed'. The sort parameter was added. The direction parameter was added.

# • Parameters

- **state** (*str*) (optional), accepted values: ('all', 'open', 'closed')
- head (*str*) (optional), filters pulls by head user and branch name in the format user:ref-name, e.g., seveas:debian
- **base** (*str*) (optional), filter pulls by base branch name. Example: develop.
- **sort** (*str*) (optional), Sort pull requests by created, updated, popularity, long-running. Default: 'created'
- direction (*str*) (optional), Choose the direction to list pull requests. Accepted values: ('desc', 'asc'). Default: 'desc'
- **number** (*int*) (optional), number of pulls to return. Default: -1 returns all available pull requests
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of pull requests

Return type ShortPullRequest

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

readme()

Get the README for this repository.

Returns this repository's readme

Return type Contents

ref(ref)

Get a reference pointed to by ref.

The most common will be branches and tags. For a branch, you must specify 'heads/branchname' and for a tag, 'tags/tagname'. Essentially, the system should return any reference you provide it in the namespace, including notes and stashes (provided they exist on the server).

**Parameters ref**(*str*) – (required)

**Returns** the reference

Return type Reference

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

# Returns self

**refs** (*subspace="*, *number=-1*, *etag=None*)

Iterate over references for this repository.

# Parameters

- **subspace** (*str*) (optional), e.g. 'tags', 'stashes', 'notes'
- **number** (*int*) (optional), number of refs to return. Default: -1 returns all available refs
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of references

Return type Reference

### **release**(*id*)

Get a single release.

**Parameters** id (*int*) – (required), id of release

Returns the release

**Return type** *Release* 

# release\_from\_tag(tag\_name)

Get a release by tag name.

release\_from\_tag() returns a release with specified tag while release() returns a release with specified release id

**Parameters tag\_name** (*str*) – (required) name of tag

Returns the release

Return type Release

# **releases** (*number=-1*, *etag=None*)

Iterate over releases for this repository.

# **Parameters**

- **number** (*int*) (optional), number of refs to return. Default: -1 returns all available refs
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of releases

Return type Release

### remove\_collaborator(username)

Remove collaborator username from the repository.

Parameters username (str or User) - (required), login name of the collaborator

Returns True if successful, False otherwise

Return type bool

# stargazers (number=-1, etag=None)

List users who have starred this repository.

# **Parameters**

- **number** (*int*) (optional), number of stargazers to return. Default: -1 returns all subscribers available
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of users

```
Return type ShortUser
```

```
statuses (sha, number=-1, etag=None)
```

Iterate over the statuses for a specific SHA.

**Warning:** Deprecated in v1.0. Also deprecated upstream https://developer.github.com/v3/repos/ statuses/

# Parameters

- **sha** (*str*) **SHA** of the commit to list the statuses of
- **number** (*int*) (optional), return up to number statuses. Default: -1 returns all available statuses.
- etag (*str*) (optional), ETag from a previous request to the same endpoint

Returns generator of statuses

# Return type Status

### subscribe()

Subscribe the user to this repository's notifications.

New in version 1.0.

This replaces Repository#set\_subscription

# Parameters

- **subscribed** (*bool*) (required), determines if notifications should be received from this repository.
- **ignored** (*bool*) (required), determines if notifications should be ignored from this repository.

**Returns** the new repository subscription

Return type RepositorySubscription

# subscribers (number=-1, etag=None)

Iterate over users subscribed to this repository.

# Parameters

- **number** (*int*) (optional), number of subscribers to return. Default: -1 returns all subscribers available
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of users subscribed to this repository

Return type ShortUser

### subscription()

Return subscription for this Repository.

Returns the user's subscription to this repository

Return type RepositorySubscription

### tag(sha)

Get an annotated tag.

http://learn.github.com/p/tagging.html

Parameters sha (str) – (required), sha of the object for this tag

**Returns** the annotated tag

Return type Tag

tags (number=-1, etag=None)

Iterate over tags on this repository.

# Parameters

- **number** (*int*) (optional), return up to at most number tags. Default: -1 returns all available tags.
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of tags with GitHub repository specific information

Return type RepoTag

**teams** (*number=-1*, *etag=None*)

Iterate over teams with access to this repository.

### **Parameters**

- **number** (*int*) (optional), return up to number Teams. Default: -1 returns all Teams.
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of teams

Return type Team

### tree(sha)

Get a tree.

**Parameters** sha (str) – (required), sha of the object for this tree

Returns the tree

Return type Tree

# weekly\_commit\_count()

Retrieve the total commit counts.

**Note:** All statistics methods may return a 202. If github3.py receives a 202 in this case, it will return an emtpy dictionary. You should give the API a moment to compose the data and then re -request it via this method.

..versionadded:: 0.7

The dictionary returned has two entries: all and owner. Each has a fifty-two element long list of commit counts. (Note: all includes the owner.) d['all'][0] will be the oldest week, d['all'][51] will be the most recent.

**Returns** the commit count as a dictionary

Return type dict

### class github3.repos.repo.StarredRepository (json, session)

This object represents the data returned about a user's starred repos.

GitHub used to send back the starred\_at attribute on Repositories but then changed the structure to a new object that separates that from the Repository representation. This consolidates the two.

### Attributes:

# starred\_at

A parsed datetime object representing the date a the repository was starred.

#### repository

The *Repository* that was starred by the user.

See also: https://developer.github.com/v3/activity/starring/#list-repositories-being-starred

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

# Return type dict

### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

# Returns this object's attributes as a JSON string

#### Return type str

```
from_dict (json_dict, session)
```

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

### Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

**class** github3.repos.branch.**Branch** (*json*, *session*) The representation of a branch returned in a collection.

GitHub's API returns different amounts of information about repositories based upon how that information is retrieved. This object exists to represent the limited amount of information returned for a specific branch in a collection. For example, you would receive this class when calling *branches()*. To provide a clear distinction between the types of branches, github3.py uses different classes with different sets of attributes.

This object has the same attributes as a ShortBranch as well as the following:

# links

The dictionary of URLs returned by the API as \_links.

# protected

A boolean attribute that describes whether this branch is protected or not.

# protection

A dictionary with details about the protection configuration of this branch.

# protection\_url

The URL to access and manage details about this branch's protection.

# class github3.repos.contents.Contents(json, session)

A representation of file contents returned via the API.

See also: http://developer.github.com/v3/repos/contents/

This object has the following attributes:

#### content

The body of the file. If this is present, it may be base64 encoded.

# encoding

The encoding used on the *content* when returning the data from the API, e.g., base64. If *content* is not present this will not be present either.

# decoded

Note: This is a computed attribute which isn't returned by the API.

Changed in version 0.5.2.

Decoded content of the file as a bytes object. If we try to decode to character set for you, we might encounter an exception which will prevent the object from being created. On python2 this is the same as a string, but on python3 you should call the decode method with the character set you wish to use, e.g., content.decoded.decode('utf-8').

# git\_url

The URL for the Git API pertaining to this file.

# html\_url

The URL to open this file in a browser.

# links

A dictionary of links returned about the contents and related resources.

#### name

The name of the file.

# path

The path to this file.

# sha

The SHA1 of the contents of this file.

# size

The size of file in bytes.

# submodule\_git\_url

The URL of the git submodule (if this is a git submodule).

# target

If the file is a symlink, this will be present and provides the type of file that the symlink points to.

# type

```
Type of content, e.g., 'file', 'symlink', or 'submodule'.
```

**delete** (*message*, *branch=None*, *committer=None*, *author=None*)

Delete this file.

# Parameters

- **message** (*str*) (required), commit message to describe the removal
- **branch** (*str*) (optional), branch where the file exists. Defaults to the default branch of the repository.
- **committer** (*dict*) (optional), if no information is given the authenticated user's information will be used. You must specify both a name and email.
- **author** (*dict*) (optional), if omitted this will be filled in with committer information. If passed, you must specify both a name and email.

Returns dictionary of new content and associated commit

Return type Contents and Commit

**update** (*message*, *content*, *branch=None*, *committer=None*, *author=None*) Update this file.

#### **Parameters**

- **message** (*str*) (required), commit message to describe the update
- **content** (*str*) (required), content to update the file with
- **branch** (*str*) (optional), branch where the file exists. Defaults to the default branch of the repository.
- **committer** (*dict*) (optional), if no information is given the authenticated user's information will be used. You must specify both a name and email.
- **author** (*dict*) (optional), if omitted this will be filled in with committer information. If passed, you must specify both a name and email.

**Returns** dictionary containing the updated contents object and the commit in which it was changed.

Return type dictionary of Contents and Commit

**class** github3.repos.deployment.**Deployment** (*json*, *session*) Representation of a deployment of a repository at a point in time.

See also: https://developer.github.com/v3/repos/deployments/

This object has the following attributes:

# created\_at

A datetime representing the date and time when this deployment was created.

# creator

A ShortUser representing the user who created this deployment.

# description

The description of this deployment as provided by the *creator*.

#### environment

The environment targeted for this deployment, e.g., 'production', 'staging'.

# id

The unique identifier of this deployment.

# payload

The JSON payload string sent as part to trigger this deployment.

#### ref

The reference used to create this deployment, e.g., 'deploy-20140526'.

#### sha

The SHA1 of the branch on GitHub when it was deployed.

# statuses\_url

The URL to retrieve the statuses of this deployment from the API.

#### updated\_at

A datetime object representing the date and time when this deployment was most recently updated.

# create\_status (state, target\_url=None, description=None)

Create a new deployment status for this deployment.

# **Parameters**

- **state** (*str*) (required), The state of the status. Can be one of pending, success, error, or failure.
- target\_url (*str*) The target URL to associate with this status. This URL should contain output to keep the user updated while the task is running or serve as historical information for what happened in the deployment. Default: ".
- **description** (*str*) A short description of the status. Default: ".

Returns the incomplete deployment status

#### **Return type** DeploymentStatus

#### statuses (number=-1, etag=None)

Iterate over the deployment statuses for this deployment.

#### Parameters

- **number** (*int*) (optional), the number of statuses to return. Default: -1, returns all statuses.
- **etag** (*str*) (optional), the ETag header value from the last time you iterated over the statuses.

**Returns** generator of the statuses of this deployment

**Return type** DeploymentStatus

# class github3.repos.deployment.DeploymentStatus(json, session)

Representation of the status of a deployment of a repository.

See also https://developer.github.com/v3/repos/deployments/#get-a-single-deployment-status

This object has the following attributes:

## created\_at

A datetime representing the date and time when this deployment status was created.

#### creator

A ShortUser representing the user who created this deployment status.

### deployment\_url

The URL to retrieve the information about the deployment from the API.

# description

The description of this status as provided by the *creator*.

# id

The unique identifier of this deployment.

# state

The state of the deployment, e.g., 'success'.

#### target\_url

The URL to associate with this status. This should link to the output of the deployment.

# class github3.repos.release.Release(json, session)

Representation of a GitHub release.

It holds the information GitHub returns about a release from a Repository.

Please see GitHub's Releases Documentation for more information.

This object has the following attributes:

#### original\_assets

A list of *Asset* objects representing the assets uploaded for this relesae.

# assets\_url

The URL to retrieve the assets from the API.

#### author

A ShortUser representing the creator of this release.

# body

The description of this release as written by the release creator.

# created\_at

A datetime object representing the date and time when this release was created.

# draft

A boolean attribute describing whether this release is a draft.

#### html\_url

The URL to view this release in a browser.

#### id

The unique identifier of this release.

# name

The name given to this release by the *author*.

#### prerelease

A boolean attribute indicating whether the release is a pre-release.

#### published\_at

A datetime object representing the date and time when this release was publisehd.

#### tag\_name

The name of the tag associated with this release.

# tarball\_url

The URL to retrieve a GitHub generated tarball for this release from the API.

# target\_commitish

The reference (usually a commit) that is targetted by this release.

# upload\_urlt

A URITemplate object that expands to form the URL to upload assets to.

# zipball\_url

The URL to retrieve a GitHub generated zipball for this release from the API.

# archive (format, path=")

Get the tarball or zipball archive for this release.

# Parameters

- **format** (*str*) (required), accepted values: ('tarball', 'zipball')
- **path** (*str*, file) (optional), path where the file should be saved to, default is the filename provided in the headers and will be written in the current directory. It can take a file-like object as well

Returns True if successful, False otherwise

# Return type bool

# asset (asset\_id)

Retrieve the asset from this release with asset\_id.

# Parameters asset\_id (int) - ID of the Asset to retrieve

**Returns** the specified asset, if it exists

#### Return type Asset

**assets** (*number*=-1, *etag*=None) Iterate over the assets available for this release.

# **Parameters**

- **number** (*int*) (optional), Number of assets to return
- etag (str) (optional), last ETag header sent

Returns generator of asset objects

Return type Asset

#### delete()

Delete this release.

Only users with push access to the repository can delete a release.

Returns True if successful; False if not successful

#### Return type bool

edit (tag\_name=None, target\_commitish=None, name=None, body=None, draft=None, prerelease=None) Edit this release.

Only users with push access to the repository can edit a release.

If the edit is successful, this object will update itself.

#### Parameters

- tag\_name (str) (optional), Name of the tag to use
- **target\_commitish** (*str*) (optional), The "commitish" value that determines where the Git tag is created from. Defaults to the repository's default branch.
- **name** (*str*) (optional), Name of the release
- **body** (*str*) (optional), Description of the release
- draft (boolean) (optional), True => Release is a draft
- prerelease (boolean) (optional), True => Release is a prerelease

Returns True if successful; False if not successful

# Return type bool

**upload\_asset** (*content\_type*, *name*, *asset*, *label=None*) Upload an asset to this release.

**Note:** All parameters are required.

#### **Parameters**

- **content\_type** (*str*) The content type of the asset. Wikipedia has a list of common media types
- **name** (*str*) The name of the file
- **asset** The file or bytes object to upload.
- **label** (optional), An alternate short description of the asset.

Returns the created asset

Return type Asset

**class** github3.repos.release.**Asset** (*json*, *session*) Representation of an asset in a release.

# See also:

List Assets, assets () Documentation around listing assets of a release

Upload Assets, upload\_asset () Documentation around uploading assets to a release

Get a Single Asset, asset () Documentation around retrieving an asset

Edit an Asset, edit () Documentation around editing an asset

Delete an Asset, delete() Documentation around deleting an asset

This object has the following attributes:

# browser\_download\_url

The user-friendly URL to download this asset via a browser.

# content\_type

The Content-Type provided by the uploader when this asset was created.

#### created\_at

A datetime object representing the date and time when this asset was created.

# download\_count

The number of times this asset has been downloaded.

#### download url

The URL to retrieve this uploaded asset via the API, e.g., tarball, zipball, etc.

#### id

The unique identifier of this asset.

#### label

The short description of this asset.

#### name

The name provided to this asset.

#### size

The file size of this asset.

# state

The state of this asset, e.g., 'uploaded'.

# updated\_at

A datetime object representing the date and time when this asset was most recently updated.

#### delete()

Delete this asset if the user has push access.

Returns True if successful; False if not successful

# Return type bool

# download (path=")

Download the data for this asset.

**Parameters path** (*str*, file) - (optional), path where the file should be saved to, default is the filename provided in the headers and will be written in the current directory. It can take a file-like object as well

Returns name of the file, if successful otherwise None

#### **Return type** str

edit (*name*, *label=None*) Edit this asset.

#### **Parameters**

- **name** (*str*) (required), The file name of the asset
- label (*str*) (optional), An alternate description of the asset

Returns True if successful, False otherwise

Return type bool

**class** github3.repos.hook.**Hook** (*json*, *session*) The representation of a hook on a repository.

See also: http://developer.github.com/v3/repos/hooks/

This object has the following attributes:

#### active

A boolean attribute describing whether the hook is active or not.

#### config

A dictionary containing the configuration for this hook.

# created\_at

A datetime object representing the date and time when this hook was created.

#### events

The list of events which trigger this hook.

### id

The unique identifier for this hook.

#### name

The name provided to this hook.

# updated\_at

A datetime object representing the date and time when this hook was updated.

# delete()

Delete this hook.

Returns True if successful, False otherwise

# Return type bool

edit (config={], events=[], add\_events=[], rm\_events=[], active=True)
Edit this hook.

# Parameters

- **config** (*dict*) (optional), key-value pairs of settings for this hook
- events (list) (optional), which events should this be triggered for
- **add\_events** (*list*) (optional), events to be added to the list of events that this hook triggers for
- **rm\_events** (*list*) (optional), events to be removed from the list of events that this hook triggers for
- active (bool) (optional), should this event be active

Returns True if successful, False otherwise

# Return type bool

# ping()

Ping this hook.

Returns True if successful, False otherwise

Return type bool

# test()

Test this hook.

Returns True if successful, False otherwise

Return type bool

**class** github3.repos.issue\_import.**ImportedIssue** (*json*, *session*) Represents an issue imported via the unofficial API.

See also: https://gist.github.com/jonmagic/5282384165e0f86ef105

This object has the following attributes:

# created\_at

A datetime object representing the date and time when this imported issue was created.

#### id

The globally unique identifier for this imported issue.

# import\_issues\_url

The URL used to import more issues via the API.

#### repository\_url

The URL used to retrieve the repository via the API.

# status

The status of this imported issue.

# updated\_at

A datetime object representing te date and time when this imported issue was last updated.

# class github3.repos.pages.PagesInfo(json, session)

Representation of the information about a GitHub pages website.

### cname

The cname in use for the pages site, if one is set.

# custom\_404

A boolean attribute indicating whether the user configured a custom 404 page for this site.

# status

The current status of the pages site, e.g., built.

# class github3.repos.pages.PagesBuild(json, session)

Representation of a single build of a GitHub pages website.

# commit

The SHA of the commit that triggered this build.

# created\_at

A datetime object representing the date and time when this build was created.

#### duration

The time it spent processing this build.

# error

If this build errored, a dictionary containing the error message and details about the error.

#### pusher

A ShortUser representing the user who pushed the commit that triggered this build.

#### status

The current statues of the build, e.g., building.

#### updated\_at

A datetime object representing the date and time when this build was last updated.

# class github3.repos.tag.RepoTag(json, session)

```
Representation of a tag made on a GitHub repository.
```

Note: This is distinct from Tag. This object has information specific to a tag on a *GitHub* repository. That includes URLs to the tarball and zipball files auto-generated by GitHub.

See also: http://developer.github.com/v3/repos/#list-tags

This object has the following attributes:

#### commit

Changed in version 1.0.0: This attribute used to be a two item dictionary.

A MiniCommit object representing the commit this tag references.

# name

The name of this tag, e.g., v1.0.0.

#### tarball\_url

The URL for the tarball file generated by GitHub for this tag.

zipball\_url

The URL for the zipball file generated by GitHub for this tag.

More information about this class can be found in the official documentation about comments.

# class github3.repos.comment.RepoComment(json, session)

The representation of the full comment on an object in a repository.

This object has the same attributes as a ShortComment as well as the following:

# body\_html

The HTML formatted text of this comment.

# body\_text

The plain-text formatted text of this comment.

### as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

# delete()

Delete this comment.

Returns True if successfully deleted, False otherwise

#### Return type bool

#### edit (body)

Edit this comment.

Parameters body (str) - (required), new body of the comment, Markdown formatted

Returns True if successful, False otherwise

# Return type bool

# from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

# new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

repos = [r for i in g.repositories\_by('kennethreitz')]
[r.refresh() for r in repos]

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

update (body)

Edit this comment.

**Parameters body** (*str*) – (required), new body of the comment, Markdown formatted

Returns True if successful, False otherwise

Return type bool

**class** github3.repos.commit.**RepoCommit** (*json*, *session*) Representation of a commit with repository and git data.

**class** github3.repos.comparison.**Comparison**(*json*, *session*)

A representation of a comparison between two or more commit objects.

See also: http://developer.github.com/v3/repos/commits/#compare-two-commits

This object has the following attributes:

.. attribute:: ahead\_by

The number of commits between the head and base commit.

# base\_commit

A ShortCommit representing the base commit in this comparison.

#### behind\_by

The number of commits the head commit is behind the base.

#### commits

A list of ShortCommit objects representing the commits in the comparison.

# diff\_url

The URL to retrieve the diff between the head and base commits.

# files

A list of dictionaries describing each of the modified files in the comparison.

# html\_url

The URL to view the comparison in a browser.

# patch\_url

The URL to retrieve the patch-formatted diff of this comparison.

# permalink\_url

The permanent URL to retrieve this comparison.

# status

Whether the head commit is ahead or behind of base.

# total\_commits

The total number of commits difference.

# diff()

Retrieve the diff for this comparison.

**Returns** the diff as a bytes object

Return type bytes

#### patch()

Retrieve the patch formatted diff for this commit.

Returns the patch as a bytes object

Return type bytes

# **class** github3.repos.status.**Status** (*json*, *session*) Representation of a full status on a repository.

See also: http://developer.github.com/v3/repos/statuses/

This object has the same attributes as a ShortStatus as well as the following attributes:

#### creator

A ShortUser representing the user who created this status.

# class github3.repos.status.CombinedStatus(json, session)

A representation of the combined statuses in a repository.

See also: http://developer.github.com/v3/repos/statuses/

This object has the following attributes:

# commit\_url

The URL of the commit this combined status is present on.

### repository

A ShortRepository representing the repository on which this combined status exists.

#### sha

The SHA1 of the commit this status exists on.

# state

The state of the combined status, e.g., 'success', 'pending', 'failure'.

# statuses

The list of ShortStatus objects representing the individual statuses that is combined in this object.

# total\_count

The total number of sub-statuses.

# class github3.repos.stats.ContributorStats(json, session)

Representation of a user's contributor statistics to a repository.

See also http://developer.github.com/v3/repos/statistics/

This object has the following attributes:

#### author

A ShortUser representing the contributor whose stats this object represents.

#### total

The total number of commits authored by *author*.

#### weeks

A list of dictionaries containing weekly statistical data.

# alternate\_weeks

**Note:** *github3* generates this data for a more humane interface to the data in weeks.

A list of dictionaries that provide an easier to remember set of keys as well as a datetime object representing the start of the week. The dictionary looks vaguely like:

```
{
    'start of week': datetime(2013, 5, 5, 5, 0, tzinfo=tzutc())
    'additions': 100,
    'deletions': 150,
    'commits': 5,
}
```

# 2.13 Search Structures

These classes are meant to expose the entirety of an item returned as a search result by GitHub's Search API.

# 2.13.1 Objects

```
class github3.search.CodeSearchResult (json, session)
```

A representation of a code search result from the API.

This object has the following attributes:

git\_url

The URL to retrieve the blob via Git

# html\_url

The URL to view the blob found in a browser.

name

The name of the file where the search result was found.

# path

The path in the repository to the file containing the result.

# repository

A ShortRepository representing the repository in which the result was found.

#### score

The confidence score assigned to the result.

# sha

The SHA1 of the blob in which the code can be found.

# text\_matches

A list of the text matches in the blob that generated this result.

**Note:** To receive these, you must pass text\_match=True to search\_code().

# **class** github3.search.**IssueSearchResult** (*json*, *session*) A representation of a search result containing an issue.

This object has the following attributes:

# issue

A ShortIssue representing the issue found in this search result.

# score

The confidence score of this search result.

# text\_matches

A list of matches in the issue for this search result.

**Note:** To receive these, you must pass text\_match=True to search\_issues().

# class github3.search.RepositorySearchResult (json, session)

A representation of a search result containing a repository.

This object has the following attributes:

.. attribute:: repository

A ShortRepository representing the repository found by the search.

# score

The confidence score of this search result.

# text\_matches

A list of the text matches in the repository that generated this result.

Note: To receive these, you must pass text\_match=True to search\_code ().

```
class github3.search.UserSearchResult (json, session)
```

Representation of a search result for a user.

This object has the following attributes:

# score

The confidence score of this result.

#### text\_matches

If present, a list of text strings that match the search string.

#### user

A ShortUser representing the user found in this search result.

# 2.14 Structures

# 2.14.1 Developed for github3.py

As of right now, there exists only one class in this section, and it is of only limited importance to users of github3.py. The *GitHubIterator* class is used to return the results of calls to almost all of the calls to iter\_ methods on objects. When conditional refreshing was added to objects, there was a noticable gap in having conditional calls to those iter\_ methods. GitHub provides the proper headers on those calls, but there was no easy way to add that to

what github3.py returned so it could be used properly. This was the best compromise - an object the behaves like an iterator regardless but can also be refreshed to get results since the last request conditionally.

# 2.14.2 Objects

class github3.structs.GitHubIterator(count, url, cls, session, params=None, etag=None,

*headers=None*) The *GitHubIterator* class powers all of the iter\_\* methods.

as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

Returns this object's attributes serialized to a dictionary

Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

**Returns** this object's attributes as a JSON string

#### Return type str

#### cls = None

Class for constructing an item to return

count = None

Number of items left in the iterator

etag = None

The ETag Header value returned by GitHub

- from\_dict (json\_dict, session)
   Return an instance of this class formed from json\_dict.
- from\_json (json, session)

Return an instance of this class formed from json.

# headers = None

Headers generated for the GET request

last\_response = None
The last response seen

last\_status = None

Last status code received

```
last_url = None
```

Last URL that was requested

```
new_session()
```

Generate a new session.

Returns A brand new session

Return type GitHubSession

```
original = None
```

Original number of items requested

```
params = None
```

Parameters of the query string

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

```
url = None
```

URL the class used to make it's first GET

```
class github3.structs.SearchIterator (count, url, cls, session, params=None, etag=None,
```

headers=None)

This is a special-cased class for returning iterable search results.

It inherits from *GitHubIterator*. All members and methods documented here are unique to instances of this class. For other members and methods, check its parent class.

#### as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

#### Return type dict

#### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

**Returns** this object's attributes as a JSON string

# Return type str

```
from_dict (json_dict, session)
```

Return an instance of this class formed from json\_dict.

```
from_json (json, session)
Return an instance of this class formed from json.
```

items = None Items array returned in the last request

new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

```
ratelimit_remaining
```

Number of requests before GitHub imposes a ratelimit.

Returns int

```
total_count = None
```

Total count returned by GitHub

# 2.15 User

This part of the documentation covers:

- User
- Key
- Plan

None of these objects should ever be instantiated by the user (developer).

When listing users, GitHub only sends a handful of the object's attributes. To retrieve all of the object's attributes, you must call the refresh() method. This unfortunately requires another call to the API, so use it sparingly if you have a low limit

# 2.15.1 User Modules

```
class github3.users.User(json, session)
```

Object for the full representation of a User.

GitHub's API returns different amounts of information about users based upon how that information is retrieved. This object exists to represent the full amount of information returned for a specific user. For example, you would receive this class when calling *user()*. To provide a clear distinction between the types of users, github3.py uses different classes with different sets of attributes.

This object no longer contains information about the currently authenticated user (e.g., me()).

Changed in version 1.0.0.

This object contains all of the attributes available on ShortUser as well as the following:

bio

The markdown formatted User's biography

# blog

The URL of the user's blog

# company

The name or GitHub handle of the user's company

# created\_at

A parsed datetime object representing the date the user was created

# email

The email address the user has on their public profile page

# followers\_count

The number of followers of this user

# following\_count

The number of users this user follows

# hireable

Whether or not the user has opted into GitHub jobs advertising

# location

The location specified by the user on their public profile

#### name

The name specified by their user on their public profile

# public\_gists\_count

The number of public gists owned by this user

# updated\_at

A parsed datetime object representing the date the user was last updated

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

# Returns this object's attributes as a JSON string

Return type str

# delete()

Delete the user.

Per GitHub API documentation, it is often preferable to suspend the user.

Note: This is only available for admins of a GitHub Enterprise instance.

Returns bool - True if successful, False otherwise

# demote()

Demote a site administrator to simple user.

You can demote any user account except your own.

This is only available for admins of a GitHub Enterprise instance.

Returns bool - True if successful, False otherwise

events (public=False, number=-1, etag=None) Iterate over events performed by this user.

#### **Parameters**

- public (bool) (optional), only list public events for the authenticated user
- **number** (*int*) (optional), number of events to return. Default: -1 returns all available events.
- etag (str) (optional), ETag from a previous request to the same endpoint

### **Returns** generator of *Events*

followers (number=-1, etag=None)

Iterate over the followers of this user.

# Parameters

- **number** (*int*) (optional), number of followers to return. Default: -1 returns all available
- etag (str) (optional), ETag from a previous request to the same endpoint

#### Returns generator of Users

# following(number=-1, etag=None)

Iterate over the users being followed by this user.

#### Parameters

- **number** (*int*) (optional), number of users to return. Default: -1 returns all available users
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of Users

# from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

# from\_json (json, session)

Return an instance of this class formed from json.

#### impersonate(scopes=None)

Obtain an impersonation token for the user.

The retrieved token will allow impersonation of the user. This is only available for admins of a GitHub Enterprise instance.

**Parameters scopes** (*list*) – (optional), areas you want this token to apply to, i.e., 'gist', 'user'

**Returns** Authorization

#### is\_assignee\_on (username, repository)

Check if this user can be assigned to issues on username/repository.

#### **Parameters**

- **username** (*str*) owner's username of the repository
- **repository** (*str*) name of the repository

**Returns** True if the use can be assigned, False otherwise

Return type bool

# is\_following(username)

Check if this user is following username.

**Parameters username** (*str*) – (required)

# Returns bool

**keys** (*number=-1*, *etag=None*)

Iterate over the public keys of this user.

New in version 0.5.

# Parameters

- number (int)-(optional), number of keys to return. Default: -1 returns all available keys
- etag (str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of *Keys* 

#### new\_session()

Generate a new session.

Returns A brand new session

Return type GitHubSession

```
organization_events(org, number=-1, etag=None)
```

Iterate over events from the user's organization dashboard.

Note: You must be authenticated to view this.

#### **Parameters**

- **org** (*str*) (required), name of the organization
- **number** (*int*) (optional), number of events to return. Default: -1 returns all available events
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of *Events* 

#### organizations (number=-1, etag=None)

Iterate over organizations the user is member of.

#### Parameters

- **number** (*int*) (optional), number of organizations to return. Default: -1 returns all available organization
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of ShortOrganizations

# promote()

Promote a user to site administrator.

This is only available for admins of a GitHub Enterprise instance.

Returns bool - True if successful, False otherwise

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

received\_events (public=False, number=-1, etag=None)

Iterate over events that the user has received.

If the user is the authenticated user, you will see private and public events, otherwise you will only see public events.

# **Parameters**

- **public** (*bool*) (optional), determines if the authenticated user sees both private and public or just public
- **number** (*int*) (optional), number of events to return. Default: -1 returns all events available
- etag(str) (optional), ETag from a previous request to the same endpoint

**Returns** generator of *Events* 

#### refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (*bool*) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# rename (login)

Rename the user.

**Note:** This is only available for administrators of a GitHub Enterprise instance.

**Parameters** login (*str*) – (required), new name of the user

Returns bool

#### revoke\_impersonation()

Revoke all impersonation tokens for the current user.

This is only available for admins of a GitHub Enterprise instance.

Returns bool - True if successful, False otherwise

```
starred_repositories (sort=None, direction=None, number=-1, etag=None)
```

Iterate over repositories starred by this user.

Changed in version 0.5: Added sort and direction parameters (optional) as per the change in GitHub's API.

# **Parameters**

- **number** (*int*) (optional), number of starred repos to return. Default: -1, returns all available repos
- **sort** (*str*) (optional), either 'created' (when the star was created) or 'updated' (when the repository was last pushed to)
- direction (*str*) (optional), either 'asc' or 'desc'. Default: 'desc'
- etag (str) (optional), ETag from a previous request to the same endpoint

Returns generator of StarredRepository

#### subscriptions (number=-1, etag=None)

Iterate over repositories subscribed to by this user.

#### **Parameters**

- **number** (*int*) (optional), number of subscriptions to return. Default: -1, returns all available
- etag(str) (optional), ETag from a previous request to the same endpoint

Returns generator of Repository

# suspend()

Suspend the user.

This is only available for admins of a GitHub Enterprise instance.

This API is disabled if you use LDAP, check the GitHub API dos for more information.

Returns bool – True if successful, False otherwise

# unsuspend()

Unsuspend the user.

This is only available for admins of a GitHub Enterprise instance.

This API is disabled if you use LDAP, check the GitHub API dos for more information.

Returns bool - True if successful, False otherwise

# class github3.users.Key (json, session)

The object representing a user's SSH key.

Please see GitHub's Key Documentation for more information.

Changed in version 1.0.0: Removed title attribute

# key

A string containing the actual text of the SSH Key

#### id

GitHub's unique ID for this key

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

**Returns** this object's attributes serialized to a dictionary

# Return type dict

#### as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

#### **Returns** this object's attributes as a JSON string

# Return type str

### delete()

Delete this key.

from\_dict (json\_dict, session)
 Return an instance of this class formed from json\_dict.

from\_json (json, session)

Return an instance of this class formed from json.

# new\_session()

Generate a new session.

**Returns** A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# **refresh** (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

repos = [r for i in g.repositories\_by('kennethreitz')]
[r.refresh() for r in repos]

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# update (title, key)

Update this key.

**Warning:** As of 20 June 2014, the API considers keys to be immutable. This will soon begin to return MethodNotAllowed errors.

# **Parameters**

- title (*str*) (required), title of the key
- **key** (*str*) (required), text of the key file

Returns bool

# class github3.users.Plan(json, session)

The Plan object.

Please see GitHub's Authenticated User documentation for more details.

#### collaborators\_count

Changed in version 1.0.0.

The number of collaborators allowed on this plan

#### name

The name of the plan on GitHub

# private\_repos\_count

Changed in version 1.0.0.

The number of allowed private repositories

# space

The amount of space allotted by this plan

# as\_dict()

Return the attributes for this object as a dictionary.

This is equivalent to calling:

json.loads(obj.as\_json())

# Returns this object's attributes serialized to a dictionary

# Return type dict

# as\_json()

Return the json data for this object.

This is equivalent to calling:

json.dumps(obj.as\_dict())

Returns this object's attributes as a JSON string

# Return type str

from\_dict (json\_dict, session)

Return an instance of this class formed from json\_dict.

```
from_json (json, session)
```

Return an instance of this class formed from json.

# is\_free()

Check if this is a free plan.

Returns bool

**new\_session**() Generate a new session.

feliciate a new session.

Returns A brand new session

Return type GitHubSession

# ratelimit\_remaining

Number of requests before GitHub imposes a ratelimit.

Returns int

# refresh (conditional=False)

Re-retrieve the information for this object.

The reasoning for the return value is the following example:

repos = [r.refresh() for r in g.repositories\_by('kennethreitz')]

Without the return value, that would be an array of None's and you would otherwise have to do:

```
repos = [r for i in g.repositories_by('kennethreitz')]
[r.refresh() for r in repos]
```

Which is really an anti-pattern.

Changed in version 0.5.

**Parameters conditional** (bool) – If True, then we will search for a stored header ('Last-Modified', or 'ETag') on the object and send that as described in the Conditional Requests section of the docs

Returns self

# 2.16 Internals

For objects you're not likely to see in practice. This is useful if you ever feel the need to contribute to the project.

# 2.16.1 Decorators

This part of the documentation covers the decorators module which contains all of the decorators used in github3.py.

# Contents

```
github3.decorators.requires_auth(x)
```

# Chapter $\mathbf{3}$

# Installation

```
$ pip install github3.py
# OR:
$ git clone git://github.com/sigmavirus24/github3.py.git github3.py
$ cd github3.py
$ python setup.py install
```

# 3.1 Dependencies

- requests by Kenneth Reitz
- uritemplate by Ian Stapleton Cordasco

# CHAPTER 4

# Contributing

I'm maintaining two public copies of the project. The first can be found on GitHub and the second on BitBucket. I would prefer pull requests to take place on GitHub, but feel free to do them via BitBucket. Please make sure to add yourself to the list of contributors in AUTHORS.rst, especially if you're going to be working on the list below.

# 4.1 Contributor Friendly Work

In order of importance:

Documentation

I know I'm not the best at writing documentation so if you want to clarify or correct something, please do so.

Examples

Have a clever example that takes advantage of github3.py? Feel free to share it.

# 4.2 Running the Unittests

The tests are generally run using tox. Tox can be installed lke so:

```
pip install tox
```

We test against PyPy and the following versions of Python:

• 2.6

- 2.7
- 3.2
- 3.3
- 3.4

If you simply run tox it will run tests against all of these versions of python and run flake8 against the codebase as well. If you want to run against one specific version, you can do:

tox -e py34

And if you want to run tests against a specific file, you can do:

tox -e py34 -- tests/uni/test\_github.py

To run the tests, tox uses py.test so you can pass any options or parameters to py.test after specifying --. For example, you can get more verbose output by doing:

tox -e py34 -- -vv

# 4.2.1 Writing Tests for github3.py

# **Unit Tests**

In computer programming, unit testing is a method by which individual units of source code, sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures are tested to determine if they are fit for use. Intuitively, one can view a unit as the smallest testable part of an application.

-Unit Testing on Wikipedia

In github3.py we use unit tests to make assertions about how the library behaves without making a request to the internet. For example, one assertion we might write would check if custom information is sent along in a request to GitHub.

An existing test like this can be found in tests/unit/test\_repos\_release.py:

```
def test_delete(self):
    self.instance.delete()
    self.session.delete.assert_called_once_with(
        self.example_data['url'],
        headers={'Accept': 'application/vnd.github.manifold-preview'}
)
```

In this test, we check that the library passes on important headers to the API to ensure the request will work properly. self.instance is created for us and is an instance of the Release class. The test then calls delete to make a request to the API.self.session is a mock object which fakes out a normal session. It does not allow the request through but allows us to verify how github3.py makes a request. We can see that github3.py called delete on the session. We assert that it was only called once and that the only parameters sent were a URL and the custom headers that we are concerned with.

# **Mocks**

Above we talked about mock objects. What are they?

In object-oriented programming, mock objects are simulated objects that mimic the behavior of real objects in controlled ways. A programmer typically creates a mock object to test the behavior of some other object, in much the same way that a car designer uses a crash test dummy to simulate the dynamic behavior of a human in vehicle impacts.

-Mock Object on Wikipedia

We use mocks in github3.py to prevent the library from talking directly with GitHub. The mocks we use intercept requests the library makes so we can verify the parameters we use. In the example above, we were able to check that certain parameters were the only ones sent to a session method because we mocked out the session.

You may have noticed in the example above that we did not have to set up the mock object. There is a convenient helper written in tests/unit/helper.py to do this for you.

# **Example - Testing the Release Object**

Here's a full example of how we test the Release object in tests/unit/test\_repos\_release.py.

Our first step is to import the UnitHelper class from tests/unit/helper.py and the Release object from github3/repos/release.py.

```
from .helper import UnitHelper
from github3.repos.release import Release
```

Then we construct our test class and indicate which class we will be testing (or describing).

```
class TestRelease(UnitHelper):
    described_class = Release
```

We can then use the GitHub API documentation about Releases to retrieve example release data. We then can use that as example data for our test like so:

```
class TestRelease(UnitHelper):
   described_class = Release
   example_data = {
        "url": releases url("/1"),
        "html_url": "https://github.com/octocat/Hello-World/releases/v1.0.0",
        "assets_url": releases_url("/1/assets"),
        "upload_url": releases_url("/1/assets{?name}"),
        "id": 1,
        "tag_name": "v1.0.0",
        "target_commitish": "master",
        "name": "v1.0.0",
        "body": "Description of the release",
        "draft": False,
        "prerelease": False,
        "created_at": "2013-02-27T19:35:32Z",
        "published at": "2013-02-27T19:35:32Z"
        }
```

The above code now will handle making clean and brand new instances of the Release object with the example data and a faked out session. We can now construct our first test.

```
def test_delete(self):
    self.instance.delete()
    self.session.delete.assert_called_once_with(
        self.example_data['url'],
        headers={'Accept': 'application/vnd.github.manifold-preview'}
)
```

# **Integration Tests**

Integration testing is the phase in software testing in which individual software modules are combined and tested as a group.

The purpose of integration testing is to verify functional, performance, and reliability requirements placed on major design items.

-Integration tests on Wikipedia

In github3.py we use integration tests to ensure that when we make what should be a valid request to GitHub, it is in fact valid. For example, if we were testing how github3.py requests a user's information, we would expect a request for a real user's data to be valid. If the test fails we know either what the library is doing is wrong or the data requested does not exist.

An existing test that demonstrates integration testing can be found in tests/integration/ test\_repos\_release.py:

```
def test_iter_assets(self):
    """Test the ability to iterate over the assets of a release."""
    cassette_name = self.cassette_name('iter_assets')
    with self.recorder.use_cassette(cassette_name):
        repository = self.gh.repository('sigmavirus24', 'github3.py')
        release = repository.release(76677)
        for asset in release.iter_assets():
            assert isinstance(asset, github3.repos.release.Asset)
        assert asset is not None
```

In this test we use self.recorder to record our interaction with GitHub. We then proceed to make the request to GitHub that will exercise the code we wish to test. First we request a Repository object from GitHub and then using that we request a Release object. After receiving that release, we exercise the code that lists the assets of a Release. We verify that each asset is an instance of the Asset class and that at the end the asset variable is not None. If asset was None, that would indicate that GitHub did not return any data and it did not exercise the code we are trying to test.

# Betamax

Betamax is the library that we use to create the recorder above. It sets up the session object to intercept every request and corresponding response and save them to what it calls cassettes. After you record the interaction it never has to speak to the internet again for that request.

In github3.py there is a helper class (much like UnitHelper) in tests/integration/helper.py which sets everything up for us.

# **Example - Testing the Release Object**

Here's an example of how we write an integration test for github3.py. The example can be found in tests/ integration/test\_repos\_release.py.

Our first steps are the necessary imports.

```
import github3
from .helper import IntegrationHelper
```

Then we start writing our test right away.

```
class TestRelease(IntegrationHelper):
    def test_delete(self):
        """Test the ability to delete a release."""
        self.token_login()
        cassette_name = self.cassette_name('delete')
        with self.recorder.use_cassette(cassette_name):
        repository = self.gh.repository('github3py', 'github3.py')
        release = repository.create_release(
              '0.8.0.pre', 'develop', '0.8.0 fake release',
                  'To be deleted'
                    )
        assert release is not None
        assert release.delete() is True
```

Every test has access to self.gh which is an instance of GitHub. IntegrationHelper provides a lot of methods that allow you to focus on what we are testing instead of setting up for the test. The first of those methods we see in use is self.token\_login which handles authenticating with a token. It's sister method is self.basic\_login which handles authentication with basic credentials. Both of these methods will set up the authentication for you on self.gh.

The next convenience method we see is self.cassette\_name. It constructs a cassette name for you based on the test class name and the string you provide it.

Every test also has access to self.recorder. This is the Betamax recorder that has been set up for you to record your interactions. The recorder is started when you write

```
with self.recorder.use_cassette(cassette_name):
    # ...
```

Everything that talks to GitHub should be written inside of the context created by the context manager there. No requests to GitHub should be made outside of that context.

In that context, we then retrieve a repository and create a release for it. We want to be sure that we will be deleting something that exists so we assert that what we received back from GitHub is not None. Finally we call delete and assert that it returns True.

When you write your new test and record a new cassette, be sure to add the new cassette file to the repository, like so:

```
git add tests/cassettes/Release_delete.json
```

# **Recording Cassettes that Require Authentication/Authorization**

If you need to write a test that requires an Authorization (i.e., oAuth token) or Authentication (i.e., username and password), all you need to do is set environment variables when running *py.test*, e.g.,

```
GH_AUTH="abc123" py.test
GH_USER="sigmavirus24" GH_PASSWORD="super-secure-password-plz-kthxbai" py.test
```

If you are concerned that your credentials will be saved, you need not worry. Betamax sanitizes information like that before saving the cassette. It never does hurt to double check though.

# CHAPTER 5

# Contact

- Twitter: @sigmavirus24
- Private email: graffatcolmingov [at] gmail
- Mailing list: github3.py [at] librelist.com

# CHAPTER 6

# Latest Version's Changes

### 6.1 1.0.1: 2018-03-14

#### 6.1.1 Bugs Fixed

• Fix missing python-dateutil requirement when installing from a wheel.

### 6.2 1.0.0: 2018-03-13

1.0.0 is a huge release. It includes a great deal of changes to github3.py. It is suggested you read the following release notes *very* carefully.

Unfortunately, it's plausible that some things have slipped through the cracks in these release notes.

### 6.2.1 Breaking Changes

- Methods that iterate over collections return a separate class than methods that retrieve a single instance. These objects have separate representations when retrieving the data from GitHub's API. They include:
  - Team now can be represented by ShortTeam or Team
  - Organization now can be represented by ShortOrganization or Organization
  - Issue now can be represented by ShortIssue or Issue
  - PullRequest now can be represented by ShortPullRequest or PullRequest
  - Commit now can be represented by ShortCommit, or Commit
  - Gist now can be represented by ShortGist, GistFork, or Gist
  - GistFile now can be represented by ShortGistFile or GistFile
  - Repository objects:

- \* Branch now can be represented by ShortBranch or Branch
- \* RepoComment now can be represented by ShortComment or ShortRepoComment
- \* Repository now can be represented by ShortRepository or Repository
- \* RepoCommit now can be represented by MiniCommit, ShortCommit, or RepoCommit
- \* Status now can be represented by ShortStatus or Status
- User now can be represented by ShortUser, Contributor, User, or AuthenticatedUser
- License now can be represented by ShortLicense or License
- Refreshing a short representation of an object will result in a new object of a new class returned. For example:

```
import github3
users = [(u, u.refresh()) for u in github3.all_users(10)]
for short_user, user in users:
    assert isinstance(short_user, github3.users.ShortUser)
    assert isinstance(user, github3.users.User)
```

- Remove Thread.comment, Thread.thread, Thread.urls attributes.
- Remove Thread#is\_unread method. Use the Thread.unread attribute instead.
- Subscription has been split into two objects: ThreadSubscription and RepositorySubscription with the same methods.
- Remove is\_ignored method from our Subscription objects. Use the ignored attribute instead.
- Remove is\_subscribed method from our Subscription objects. Use the subscribed attribute instead.
- Move Users#add\_email\_addresses to GitHub#add\_email\_addresses.
- Move Users#delete\_email\_addresses to GitHub#delete\_email\_addresses.
- Remove Users#add\_email\_address and Users#delete\_email\_address.
- Remove Repository#update\_label.
- When you download a release asset, instead of returning True or False, it will return the name of the file in which it saved the asset.
- The download method on github3.pulls.PullFile instances has been removed.
- The contents method on github3.pulls.PullFile instances now return instances of github3. repos.contents.Contents.
- Replace Repository#comments\_on\_commit with RepoCommit#comments.
- Organization#add\_member has been changed. The second parameter has been changed to team\_id and now expects an integer.
- Organization#add\_repository has been changed. The second parameter has been changed to team\_id and now expects an integer.
- All methods and functions starting with iter\_have been renamed.

Old name	New name
github3.iter_all_repos	github3.all_repositories
github3.iter_all_users	github3.all_users
github3.iter_events	github3.all_events
github3.iter_followers	github3.followers_of

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Old name New name		
github3.iter_following	github3.followed_by	
github3.iter_repo_issues	github3.issues_on	
github3.iter_orgs	github3.organizations_with	
github3.iter_user_repos	github3.repositories_by	
github3.iter_starred	github3.starred_by	
github3.iter_subscriptions	github3.subscriptions_for	
Deployment#iter_statuses	Deployment#statuses Gist#comments	
Gist#iter_comments		
Gist#iter_commits	Gist#commits	
Gist#iter_files	Gist#files	
Gist#iter_forks	Gist#forks	
GitHub#iter_all_repos	GitHub#all_repositories	
GitHub#iter_all_users	GitHub#all_users	
GitHub#iter_authorizations	GitHub#authorizations	
GitHub#iter_emails	GitHub#emails	
GitHub#iter_events	GitHub#events	
GitHub#iter_followers	<pre>GitHub#{followers,followers_of}</pre>	
GitHub#iter_following	<pre>GitHub#{following,followed_by}</pre>	
GitHub#iter_gists	<pre>GitHub#{gists,gists_by,public_gists}</pre>	
GitHub#iter_notifications	GitHub#notifications	
GitHub#iter_org_issues	GitHub#organization_issues	
GitHub#iter_issues	GitHub#issues	
GitHub#iter_user_issues	GitHub#user_issues	
GitHub#iter_repo_issues	GitHub#issues_on	
GitHub#iter_keys	GitHub#keys	
GitHub#iter_orgs	GitHub#{organizations,organizations_with}	
GitHub#iter_repos	GitHub#reposistories	
GitHub#iter_user_repos	GitHub#repositories_by	
GitHub#iter_user_teams	GitHub#user_teams	
Issue#iter_comments	Issue#comments	
Issue#iter_events	Issue#events	
Issue#iter_labels	Issue#labels	
Milestone#iter_labels	Milestone#labels	
Organization#iter_members	Organization#members	
Organization#iter_public_members	Organization#public_members	
Organization#iter_repos	Organization#repositories	
Organization#iter_teams	Organization#teams	
PullRequest#iter_comments	PullRequest#review_comments	
PullRequest#iter_commits	PullRequest#commits	
PullRequest#iter_files	PullRequest#files	
PullRequest#iter_issue_comments	PullRequest#issue_comments	
Team#iter_members	Team#members	
Team#iter_repos	Team#repositories	
Repository#iter_assignees	Repository#assignees	
Repository#iter_branches	Repository#branches	
Repository#iter_code_frequency	Repository#code_frequency	
Repository#iter_collaborators	Repository#collaborators	
Repository#iter_comments	Repository#comments	
Repository#iter_comments_on_commit	RepoCommit#comments	

Table 6.1 – continued from pre	vious page
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Old name	New name
Repository#iter_commit_activity	Repository#commit_activity
Repository#iter_commits	Repository#commits
Repository#iter_contributor_statistics	Repository#contributor_statistics
Repository#iter_contributors	Repository#contributors
Repository#iter_forks	Repository#forks
Repository#iter_hooks	Repository#hooks
Repository#iter_issues	Repository#issues
Repository#iter_issue_events	Repository#issue_events
Repository#iter_keys	Repository#keys
Repository#iter_labels	Repository#labels
Repository#iter_languages	Repository#languages
Repository#iter_milestones	Repository#milestones
Repository#iter_network_events	Repository#network_events
Repository#iter_notifications	Repository#notifications
Repository#iter_pages_builds	Repository#pages_builds
Repository#iter_pulls	Repository#pull_requests
Repository#iter_refs	Repository#refs
Repository#iter_releases	Repository#releases
Repository#iter_stargazers	Repository#stargazers
Repository#iter_subscribers	Repository#subscribers
Repository#iter_statuses	Repository#statuses
Repository#iter_tags	Repository#tags
Repository#iter_teams	Repository#teams
Repository#iter_teams	Repository#teams
User#iter_events	User#events
User#iter_followers	User#followers
User#iter_following	User#following
User#iter_keys	User#keys
User#iter_org_events	User#organization_events
User#iter_received_events	User#received_events
User#iter_orgs	User#organizations
User#iter_starred	User#starred_repositories
User#iter_subscriptions	User#subscriptions

Table 6.1 - continued	from	previous	page
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- github3.login has been simplified and split into two functions:
  - github3.login serves the majority use case and only provides an authenticated GitHub object.
  - github3.enterprise\_login allows GitHub Enterprise users to log into their service.
- GitHub#iter\_followers was split into two functions:
  - GitHub#followers\_of which iterates over all of the followers of a user whose username you provide
  - GitHub#followers which iterates over all of the followers of the authenticated user
- GitHub#iter\_following was split into two functions:
  - GitHub#followed\_by which iterates over all of the users followed by the username you provide
  - GitHub#following which iterates over all of the users followed by the authenticated user
- GitHub#iter\_gists was split into three functions:
  - GitHub#public\_gists which iterates over all of the public gists on GitHub
  - GitHub#gists\_for which iterates over all the public gists of a specific user

- GitHub#gists which iterates over the authenticated users gists
- GitHub#iter\_orgs was split into two functions:
  - GitHub#organizations which iterates over the authenticated user's organization memberships
  - GitHub#organizations\_with which iterates over the given user's organization memberships
- GitHub#iter\_subscriptions was split into two functions:
  - GitHub#subscriptions\_for which iterates over an arbitrary user's subscriptions
  - GitHub#subscriptions which iterates over the authenticated user's subscriptions
- GitHub#iter\_starred was split into two functions:
  - GitHub#starred\_by which iterates over an arbitrary user's stars
  - GitHub#starred which iterates over the authenticated user's stars
- GitHub#user was split into two functions:
  - GitHub#user which retrieves an arbitrary user's information
  - GitHub#me which retrieves the authenticated user's information
- GitHub#update\_user has been renamed to GitHub#update\_me and only uses 1 API call now. It was renamed to reflect the addition of GitHub#me.
- The legacy watching API has been removed:
  - GitHub#subscribe
  - GitHub#unsubscribe
  - GitHub#is\_subscribed
- GitHub#create\_repo was renamed to GitHub#create\_repository
- GitHub#delete\_key was removed. To delete a key retrieve it with GitHub#key and then call Key#delete.
- Repository#set\_subscription was split into two simpler functions
  - Repository#subscribe subscribes the authenticated user to the repository's notifications
  - Repository#ignore ignores notifications from the repository for the authenticated user
- Repository#contents was split into two simpler functions
  - Repository#file\_contents returns the contents of a file object
  - Repository#directory\_contents returns the contents of files in a directory.
- Organization#add\_repo and Team#add\_repo have been renamed to Organization#add\_repository and Team#add\_repository respectively.
- Organization#create\_repo has been renamed to Organization#create\_repository. It no longer accepts has\_downloads. It now accepts license\_template.
- Organization#remove\_repo has been renamed to Organization#remove\_repository. It now accepts team\_id instead of team.
- github3.ratelimit\_remaining was removed
- GitHub instances can no longer be used as context managers
- The pull request API has changed.
  - The links attribute now contains the raw \_links attribute from the API.

- The merge\_commit\_sha attribute has been removed since it was deprecated in the GitHub API.
- To present a more consistent universal API, certain attributes have been renamed.

Old name	New attribute name
PullFile.additions	additions_count
PullFile.deletions	deletions_count
PullFile.changes	changes_count
PullRequest.additions	additions_count
PullRequest.comments	comments_count
PullRequest.commits	commits_count
PullRequest.deletions	deletions_count
PullRequest.review_comments	review_comments_count

- The Gist API has changed.
  - The forks and files attributes that used to keep count of the number of forks and files have been **removed**.
  - The comments attribute which provided the number of comments on a gist, has been renamed to comments\_count.
  - The is\_public method has been removed since it just returned the Gist.public attribute.
- Most instances of login as a parameter have been changed to username for clarity and consistency. This affects the following methods:
  - github3.authorize
  - github3.repositories\_by
  - github3.user
  - GitHub
  - GitHub#authorize
  - GitHub#follow
  - GitHub#is\_following
  - GitHub#is\_starred
  - GitHub#issue
  - GitHub#followers\_of
  - GitHub#followed\_by
  - GitHub#gists\_by
  - GitHub#issues\_on
  - GitHub#organizations\_with
  - GitHub#starred\_by
  - GitHub#subscriptions\_for
  - GitHub#user
  - GitHubEnterprise
  - Issue#assign
  - Organization#add\_member

- Organization#is\_member
- Organization#is\_public\_member
- Organization#remove\_member
- Repository#add\_collaborator
- Repository#is\_assignee
- Repository#is\_collaborator
- Repository#remove\_collaborator
- Team#add\_member
- Team#is\_member
- User#is\_assignee\_on
- User#is\_following
- Repository.stargazers is now Repository.stargazers\_count (conforming with the attribute name returned by the API).
- The Issue API has changed in order to provide a more consistent attribute API. Issue.comments is now Issue.comments\_count and returns the number of comments on an issue.
- The Issue.labels attribute has also been renamed. It is now available from Issue.original\_labels. This will provide the user with the list of Label objects that was returned by the API. To retrieve an updated list of labels, the user can now use Issue#labels, e.g.

```
i = github3.issue('sigmavirus24', 'github3.py', 30)
labels = list(i.labels())
```

• The Organization and User APIs have changed to become more consistent with the rest of the library and GitHub API. The following attribute names have been changed

Old name	New attribute name
Organization.followers	followers_count
Organization.following	following_count
Organization.public_repos	public_repos_count
User.followers	followers_count
User.following	following_count
User.public_repos	public_repos_count

- The Release.assets attribute has been renamed to Release.original\_assets. To retrieve up-todate assets, use the Release#assets method.
- The Authorization API has changed. The update method has been split into three methods: add\_scopes, remove\_scopes, replace\_scopes. This highlights the fact that Authorization#update used to require more than one request.
- Event#is\_public has been removed. Simply check the event's public attribute instead.
- Repository#delete\_file and Repository#update\_file have been removed. Simply delete or update a file using the Contents API.
- Content#delete now returns a dictionary that matches the JSON returned by the API. It contains the Contents and the Commit associated with the deletion.
- Content#update now returns a dictionary that matches the JSON returned by the API. It contains the Contents and the Commit associated with the deletion.

• Issue.pull\_request has been renamed to Issue.pull\_request\_urls

#### 6.2.2 New Features

- Most objects now have a session attribute. This is a subclass of a Session object from requests. This can now be used in conjunction with a third-party caching mechanism. The suggested caching library is cachecontrol.
- All object's url attribute are now available.
- You can now retrieve a repository by its id with GitHub#repository\_with\_id.
- You can call the pull\_request method on an Issue now to retrieve the associated pull request:

```
import github3
i = github3.issue('sigmavirus24', 'github3.py', 301)
pr = i.pull_request()
```

- Add support for the Issue locking API currently in Preview Mode
- Add Organization#all\_events.
- Add Tag.tagger\_as\_User which attempts to return the tagger as as User.
- Add Repo.statuses and a corresponding repo.status.CombinedStatus to
- Support filtering organization members by whether they have 2FA enabled.
- Support filtering organization and team members by role.
- Add GitHub#all\_organizations.
- Add PullRequest#create\_comment.
- Add Repository#release\_by\_tag\_name to retrieve a Release from a Repository by its associated tag name.
- Add Repository#latest\_release to retrieve the latest Release for a Repository.
- Add GitHub#license to retrieve a github3.license.License by the license name.
- Add GitHub#licenses to iterate over all the licenses returned by GitHub's Licenses API.
- Add protection information to github3.repos.branch.Branch.
- Add Branch#protect and Branch#unprotect to support updating a Branch's protection status.
- Vastly improved GitHub Enterprise support:
  - Add User#rename to rename a user in a GitHub Enterprise installation.
  - Add GitHub#create\_user to create a user.
  - Add User#impersonate to create an impersonation token by an admin for a particular user.
  - Add User#revoke\_impersonation to revoke all impersonation tokens for a user.
  - Add User#promote to promote a particular user to a site administrator.
  - Add User#demote to demote a site administrator to a simple user.
  - Add User#suspend to suspend a user's account.
  - Add User#unsuspend to reinstate a user's account.
- Add original\_content attribute to a GistFile

- Add GistFile#content to retrieve the contents of a file in a gist from the API.
- Add support for the alpha bulk issue import API
- You can now download a file in a pull request to a file on disk.
- You can retrieve the contents of the file in a pull request as bytes.
- Add id attribute to github3.repos.milestone.Milestone.
- Add support for sort, direction, and since parameters to the comments method on github3.issues. Issue.
- Add branch argument to update and delete methods on github3.repos.contents.Contents.
- Add permissions attribute to github3.repos.repo.Repository object to retrieve the permissions for a specific repository.
- Allow a deployment to be retrieved by its id.
- Add the delete method to the github3.repos.release.Asset class.

### 6.2.3 Bugs Fixed

- Fix the dependencies and requirements. In 1.0.0a3 we moved to using the setup.cfg file to define optional dependencies for wheels. By doing so we accidentally left out our actual hard dependencies.
- The context parameter to Repository#create\_status now properly defaults to "default".
- Fix AttributeError when IssueEvent has assignee.
- Correctly set the message attribute on RepoCommit instances.
- Include browser\_download\_url on Asset instances.
- (Packaging related) Fix setup.py to use proper values for certain parameters.
- Fix ValueError for Repository#create\_file.
- Pull request files can now be downloaded even when the repository is private.
- Fix exception when merging a pull request with an empty commit message.
- Add missing Issue events.
- Coerce review comment positions to integers.

### 6.2.4 Deprecations and Other Changes

- Deprecate Organization#events in favor of Organization#public\_events.
- Fix test failtures on windows caused by unclosed file handles. get a combined view of commit statuses for a given ref.
- The refresh method will eventually stop updating the instance in place and instead only return new instances of objects.

The full history of the project is available as well.

#### Changelog

#### 1.0.1: 2018-03-14

#### **Bugs Fixed**

• Fix missing python-dateutil requirement when installing from a wheel.

#### 1.0.0: 2018-03-13

1.0.0 is a huge release. It includes a great deal of changes to github3.py. It is suggested you read the following release notes *very* carefully.

Unfortunately, it's plausible that some things have slipped through the cracks in these release notes.

#### **Breaking Changes**

- Methods that iterate over collections return a separate class than methods that retrieve a single instance. These objects have separate representations when retrieving the data from GitHub's API. They include:
  - Team now can be represented by ShortTeam or Team
  - Organization now can be represented by ShortOrganization or Organization
  - Issue now can be represented by ShortIssue or Issue
  - PullRequest now can be represented by ShortPullRequest or PullRequest
  - Commit now can be represented by ShortCommit, or Commit
  - Gist now can be represented by ShortGist, GistFork, or Gist
  - GistFile now can be represented by ShortGistFile or GistFile
  - Repository objects:
    - \* Branch now can be represented by ShortBranch or Branch
    - \* RepoComment now can be represented by ShortComment or ShortRepoComment
    - \* Repository now can be represented by ShortRepository or Repository
    - \* RepoCommit now can be represented by MiniCommit, ShortCommit, or RepoCommit
    - \* Status now can be represented by ShortStatus or Status
  - User now can be represented by ShortUser, Contributor, User, or AuthenticatedUser
  - License now can be represented by ShortLicense or License
- Refreshing a short representation of an object will result in a new object of a new class returned. For example:

```
import github3
users = [(u, u.refresh()) for u in github3.all_users(10)]
for short_user, user in users:
    assert isinstance(short_user, github3.users.ShortUser)
    assert isinstance(user, github3.users.User)
```

- Remove Thread.comment, Thread.thread, Thread.urls attributes.
- Remove Thread#is\_unread method. Use the Thread.unread attribute instead.

- Subscription has been split into two objects: ThreadSubscription and RepositorySubscription with the same methods.
- Remove is\_ignored method from our Subscription objects. Use the ignored attribute instead.
- Remove is\_subscribed method from our Subscription objects. Use the subscribed attribute instead.
- Move Users#add\_email\_addresses to GitHub#add\_email\_addresses.
- Move Users#delete\_email\_addresses to GitHub#delete\_email\_addresses.
- Remove Users#add\_email\_address and Users#delete\_email\_address.
- Remove Repository#update\_label.
- When you download a release asset, instead of returning True or False, it will return the name of the file in which it saved the asset.
- The download method on github3.pulls.PullFile instances has been removed.
- The contents method on github3.pulls.PullFile instances now return instances of github3. repos.contents.Contents.
- Replace Repository#comments\_on\_commit with RepoCommit#comments.
- Organization#add\_member has been changed. The second parameter has been changed to team\_id and now expects an integer.
- Organization#add\_repository has been changed. The second parameter has been changed to team\_id and now expects an integer.
- All methods and functions starting with iter\_have been renamed.

Old name	New name
github3.iter_all_repos	github3.all_repositories
github3.iter_all_users	github3.all_users
github3.iter_events	github3.all_events
github3.iter_followers	github3.followers_of
github3.iter_following	github3.followed_by
github3.iter_repo_issues	github3.issues_on
github3.iter_orgs	github3.organizations_with
github3.iter_user_repos	github3.repositories_by
github3.iter_starred	github3.starred_by
github3.iter_subscriptions	github3.subscriptions_for
Deployment#iter_statuses	Deployment#statuses
Gist#iter_comments	Gist#comments
Gist#iter_commits	Gist#commits
Gist#iter_files	Gist#files
Gist#iter_forks	Gist#forks
GitHub#iter_all_repos	GitHub#all_repositories
GitHub#iter_all_users	GitHub#all_users
GitHub#iter_authorizations	GitHub#authorizations
GitHub#iter_emails	GitHub#emails
GitHub#iter_events	GitHub#events
GitHub#iter_followers	<pre>GitHub#{followers,followers_of}</pre>
GitHub#iter_following	<pre>GitHub#{following,followed_by}</pre>
GitHub#iter_gists	GitHub#{gists,gists_by,public_gists}
GitHub#iter_notifications	GitHub#notifications

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Old name	New name
GitHub#iter_org_issues	GitHub#organization_issues
GitHub#iter_issues	GitHub#issues
GitHub#iter_user_issues	GitHub#user_issues
GitHub#iter_repo_issues	GitHub#issues_on
GitHub#iter_keys	GitHub#keys
 GitHub#iter_orgs	GitHub#{organizations,organizations_with}
GitHub#iter_repos	GitHub#reposistories
GitHub#iter_user_repos	GitHub#repositories_by
GitHub#iter_user_teams	GitHub#user_teams
Issue#iter_comments	Issue#comments
Issue#iter_events	Issue#events
Issue#iter_labels	Issue#labels
Milestone#iter_labels	Milestone#labels
Organization#iter_members	Organization#members
Organization#iter_public_members	Organization#public_members
Organization#iter_repos	Organization#repositories
Organization#iter_teams	Organization#teams
PullRequest#iter_comments	PullRequest#review_comments
PullRequest#iter_commits	PullRequest#commits
PullRequest#iter_files	PullRequest#files
PullRequest#iter_issue_comments	PullRequest#issue_comments
Team#iter_members	Team#members
Team#iter_repos	Team#repositories
Repository#iter_assignees	Repository#assignees
Repository#iter_branches	Repository#branches
Repository#iter_code_frequency	Repository#code_frequency
Repository#iter_collaborators	Repository#collaborators
Repository#iter_comments	Repository#comments
Repository#iter_comments_on_commit	RepoCommit#comments
Repository#iter_commit_activity	Repository#commit_activity
Repository#iter_commits	Repository#commits
Repository#iter_contributor_statistics	Repository#contributor_statistics
Repository#iter_contributors	Repository#contributors
Repository#iter_forks	Repository#forks
Repository#iter_hooks	Repository#hooks
Repository#iter_issues	Repository#issues
Repository#iter_issue_events	Repository#issue_events
Repository#iter_keys	Repository#keys
Repository#iter_labels	Repository#labels
Repository#iter_languages	Repository#languages
Repository#iter_milestones	Repository#milestones
Repository#iter_network_events	Repository#network_events
Repository#iter_notifications	Repository#notifications
Repository#iter_pages_builds	Repository#pages_builds
Repository#iter_pulls	Repository#pull_requests
Repository#iter_refs	Repository#refs
Repository#iter_releases	Repository#releases
Repository#iter_stargazers	Repository#stargazers
Repository#iter_subscribers	Repository#subscribers

Table 6.2 – continued fr	rom previous p	bage
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Old name	New name
Repository#iter_statuses	Repository#statuses
Repository#iter_tags	Repository#tags
Repository#iter_teams	Repository#teams
Repository#iter_teams	Repository#teams
User#iter_events	User#events
User#iter_followers	User#followers
User#iter_following	User#following
User#iter_keys	User#keys
User#iter_org_events	User#organization_events
User#iter_received_events	User#received_events
User#iter_orgs	User#organizations
User#iter_starred	User#starred_repositories
User#iter_subscriptions	User#subscriptions

Table 6.2 – continued from previous page

- github3.login has been simplified and split into two functions:
  - github3.login serves the majority use case and only provides an authenticated GitHub object.
  - github3.enterprise\_login allows GitHub Enterprise users to log into their service.
- GitHub#iter\_followers was split into two functions:
  - GitHub#followers\_of which iterates over all of the followers of a user whose username you provide
  - GitHub#followers which iterates over all of the followers of the authenticated user
- GitHub#iter\_following was split into two functions:
  - GitHub#followed\_by which iterates over all of the users followed by the username you provide
  - GitHub#following which iterates over all of the users followed by the authenticated user
- GitHub#iter\_gists was split into three functions:
  - GitHub#public\_gists which iterates over all of the public gists on GitHub
  - GitHub#gists\_for which iterates over all the public gists of a specific user
  - GitHub#gists which iterates over the authenticated users gists
- GitHub#iter\_orgs was split into two functions:
  - GitHub#organizations which iterates over the authenticated user's organization memberships
  - GitHub#organizations\_with which iterates over the given user's organization memberships
- GitHub#iter\_subscriptions was split into two functions:
  - GitHub#subscriptions\_for which iterates over an arbitrary user's subscriptions
  - GitHub#subscriptions which iterates over the authenticated user's subscriptions
- GitHub#iter\_starred was split into two functions:
  - GitHub#starred\_by which iterates over an arbitrary user's stars
  - GitHub#starred which iterates over the authenticated user's stars
- GitHub#user was split into two functions:
  - GitHub#user which retrieves an arbitrary user's information
  - GitHub#me which retrieves the authenticated user's information

- GitHub#update\_user has been renamed to GitHub#update\_me and only uses 1 API call now. It was renamed to reflect the addition of GitHub#me.
- The legacy watching API has been removed:
  - GitHub#subscribe
  - GitHub#unsubscribe
  - GitHub#is\_subscribed
- GitHub#create\_repo was renamed to GitHub#create\_repository
- GitHub#delete\_key was removed. To delete a key retrieve it with GitHub#key and then call Key#delete.
- Repository#set\_subscription was split into two simpler functions
  - Repository#subscribe subscribes the authenticated user to the repository's notifications
  - Repository#ignore ignores notifications from the repository for the authenticated user
- Repository#contents was split into two simpler functions
  - Repository#file\_contents returns the contents of a file object
  - Repository#directory\_contents returns the contents of files in a directory.
- Organization#add\_repo and Team#add\_repo have been renamed to Organization#add\_repository and Team#add\_repository respectively.
- Organization#create\_repo has been renamed to Organization#create\_repository. It no longer accepts has\_downloads. It now accepts license\_template.
- Organization#remove\_repo has been renamed to Organization#remove\_repository. It now accepts team\_id instead of team.
- github3.ratelimit\_remaining was removed
- GitHub instances can no longer be used as context managers
- The pull request API has changed.
  - The links attribute now contains the raw \_links attribute from the API.
  - The merge\_commit\_sha attribute has been removed since it was deprecated in the GitHub API.
  - To present a more consistent universal API, certain attributes have been renamed.

Old name	New attribute name
PullFile.additions	additions_count
PullFile.deletions	deletions_count
PullFile.changes	changes_count
PullRequest.additions	additions_count
PullRequest.comments	comments_count
PullRequest.commits	commits_count
PullRequest.deletions	deletions_count
PullRequest.review_comments	review_comments_count

- The Gist API has changed.
  - The forks and files attributes that used to keep count of the number of forks and files have been **removed**.

- The comments attribute which provided the number of comments on a gist, has been renamed to comments\_count.
- The is\_public method has been removed since it just returned the Gist.public attribute.
- Most instances of login as a parameter have been changed to username for clarity and consistency. This affects the following methods:
  - github3.authorize
  - github3.repositories\_by
  - github3.user
  - GitHub
  - GitHub#authorize
  - GitHub#follow
  - GitHub#is\_following
  - GitHub#is\_starred
  - GitHub#issue
  - GitHub#followers\_of
  - GitHub#followed\_by
  - GitHub#gists\_by
  - GitHub#issues\_on
  - GitHub#organizations\_with
  - GitHub#starred\_by
  - GitHub#subscriptions\_for
  - GitHub#user
  - GitHubEnterprise
  - Issue#assign
  - Organization#add\_member
  - Organization#is\_member
  - Organization#is\_public\_member
  - Organization#remove\_member
  - Repository#add\_collaborator
  - Repository#is\_assignee
  - Repository#is\_collaborator
  - Repository#remove\_collaborator
  - Team#add\_member
  - Team#is\_member
  - User#is\_assignee\_on
  - User#is\_following

- Repository.stargazers is now Repository.stargazers\_count (conforming with the attribute name returned by the API).
- The Issue API has changed in order to provide a more consistent attribute API. Issue.comments is now Issue.comments\_count and returns the number of comments on an issue.
- The Issue.labels attribute has also been renamed. It is now available from Issue.original\_labels. This will provide the user with the list of Label objects that was returned by the API. To retrieve an updated list of labels, the user can now use Issue#labels, e.g.

```
i = github3.issue('sigmavirus24', 'github3.py', 30)
labels = list(i.labels())
```

• The Organization and User APIs have changed to become more consistent with the rest of the library and GitHub API. The following attribute names have been changed

Old name	New attribute name
Organization.followers	followers_count
Organization.following	following_count
Organization.public_repos	public_repos_count
User.followers	followers_count
User.following	following_count
User.public_repos	public_repos_count

- The Release.assets attribute has been renamed to Release.original\_assets. To retrieve up-todate assets, use the Release#assets method.
- The Authorization API has changed. The update method has been split into three methods: add\_scopes, remove\_scopes, replace\_scopes. This highlights the fact that Authorization#update used to require more than one request.
- Event#is\_public has been removed. Simply check the event's public attribute instead.
- Repository#delete\_file and Repository#update\_file have been removed. Simply delete or update a file using the Contents API.
- Content#delete now returns a dictionary that matches the JSON returned by the API. It contains the Contents and the Commit associated with the deletion.
- Content#update now returns a dictionary that matches the JSON returned by the API. It contains the Contents and the Commit associated with the deletion.
- Issue.pull\_request has been renamed to Issue.pull\_request\_urls

#### **New Features**

- Most objects now have a session attribute. This is a subclass of a Session object from requests. This can now be used in conjunction with a third-party caching mechanism. The suggested caching library is cachecontrol.
- All object's url attribute are now available.
- You can now retrieve a repository by its id with GitHub#repository\_with\_id.
- You can call the pull\_request method on an Issue now to retrieve the associated pull request:

import github3

```
i = github3.issue('sigmavirus24', 'github3.py', 301)
pr = i.pull_request()
```

- Add support for the Issue locking API currently in Preview Mode
- Add Organization#all\_events.
- Add Tag.tagger\_as\_User which attempts to return the tagger as as User.
- Add Repo.statuses and a corresponding repo.status.CombinedStatus to
- Support filtering organization members by whether they have 2FA enabled.
- Support filtering organization and team members by role.
- Add GitHub#all\_organizations.
- Add PullRequest#create\_comment.
- Add Repository#release\_by\_tag\_name to retrieve a Release from a Repository by its associated tag name.
- Add Repository#latest\_release to retrieve the latest Release for a Repository.
- Add GitHub#license to retrieve a github3.license.License by the license name.
- Add GitHub#licenses to iterate over all the licenses returned by GitHub's Licenses API.
- Add protection information to github3.repos.branch.Branch.
- Add Branch#protect and Branch#unprotect to support updating a Branch's protection status.
- Vastly improved GitHub Enterprise support:
  - Add User#rename to rename a user in a GitHub Enterprise installation.
  - Add GitHub#create\_user to create a user.
  - Add User#impersonate to create an impersonation token by an admin for a particular user.
  - Add User#revoke\_impersonation to revoke all impersonation tokens for a user.
  - Add User#promote to promote a particular user to a site administrator.
  - Add User#demote to demote a site administrator to a simple user.
  - Add User#suspend to suspend a user's account.
  - Add User#unsuspend to reinstate a user's account.
- Add original\_content attribute to a GistFile
- Add GistFile#content to retrieve the contents of a file in a gist from the API.
- · Add support for the alpha bulk issue import API
- You can now download a file in a pull request to a file on disk.
- You can retrieve the contents of the file in a pull request as bytes.
- Add id attribute to github3.repos.milestone.Milestone.
- Add support for sort, direction, and since parameters to the comments method on github3.issues. Issue.
- Add branch argument to update and delete methods on github3.repos.contents.Contents.
- Add permissions attribute to github3.repos.repo.Repository object to retrieve the permissions for a specific repository.

- Allow a deployment to be retrieved by its id.
- Add the delete method to the github3.repos.release.Asset class.

#### **Bugs Fixed**

- Fix the dependencies and requirements. In 1.0.0a3 we moved to using the setup.cfg file to define optional dependencies for wheels. By doing so we accidentally left out our actual hard dependencies.
- The context parameter to Repository#create\_status now properly defaults to "default".
- Fix AttributeError when IssueEvent has assignee.
- Correctly set the message attribute on RepoCommit instances.
- Include browser\_download\_url on Asset instances.
- (Packaging related) Fix setup.py to use proper values for certain parameters.
- Fix ValueError for Repository#create\_file.
- Pull request files can now be downloaded even when the repository is private.
- Fix exception when merging a pull request with an empty commit message.
- Add missing Issue events.
- Coerce review comment positions to integers.

#### **Deprecations and Other Changes**

- Deprecate Organization#events in favor of Organization#public\_events.
- Fix test failtures on windows caused by unclosed file handles. get a combined view of commit statuses for a given ref.
- The refresh method will eventually stop updating the instance in place and instead only return new instances of objects.

#### 0.9.3: 2014-11-04

- Backport of PullRequest#create\_review\_comment by Adrian Moisey
- Backport of PullRequest #review\_comments by Adrian Moisey
- Backport of a fix that allows authenticated users to download Release Assets. Original bug reported by Eugene Fidelin in issue #288.
- Documentation typo fix by Marc Abramowitz

#### 0.9.2: 2014-10-05

- Updates for new team management API changes
  - Add Team#invite, Team#membership\_for, and Team#revoke\_membership
  - Deprecate Team#add\_member, Team#remove\_member, and Organization#add\_member.
  - Update payload handler for TeamAddEvent.

#### 0.9.1: 2014-08-10

• Correct Repository attribute fork\_count should be forks\_count

#### 0.9.0: 2014-05-04

- Add Deployments API
- Add Pages API
- Add support so applications can revoke a single authorization or all authorizations created by the application
- Add the ability for users to ping hooks
- · Allow users to list a Repository's collaborators
- Allow users to create an empty blob on a Repository
- Update how users can list issues and pull requests. See: http://developer.github.com/ changes/2014-02-28-issue-and-pull-query-enhancements/ This includes breaking changes to Repository#iter\_pulls.
- Update methods to handle the pagination changes.
- Fix typo stargarzers\_url
- Add assets attribute to Release object.
- Fix wrong argument to Organization#create\_team (permissions versus permission)
- Fix Issue Search Result's representation and initialization
- Fix Repository Search Result's initialization
- Allow users to pass a two-factor authentication callback to GitHub#authorize.

#### 0.8.2: 2014-02-11

- Fix bug in GitHub#search\_users (and github3.search\_users). Thanks @abesto
- Expose the stargazers count for repositories. Thanks @seveas

#### 0.8.1: 2014-01-26

- Add documentation for using Two Factor Authentication
- Fix oversight where github3.login could not be used for 2FA

#### 0.8.0: 2014-01-03

• Breaking Change Remove legacy search API

I realize this should have been scheduled for 1.0 but I was a bit eager to remove this.

- Use Betamax to start recording integration tests
- Add support for Releases API
- Add support for Feeds API

- · Add support for Two-Factor Authentication via the API
- Add support for New Search API
  - Add github3.search\_code, github3.search\_issues, github3. search\_repositories,github3.search\_users
  - Add GitHub#search\_code, GitHub#search\_issues, GitHub#search\_repositories, GitHub#search\_users
- Switch to requests  $\geq 2.0$
- · Totally remove all references to the Downloads API
- Fix bug in Repository#update\_file where branch was not being sent to the API. Thanks @tpetr!
- Add GitHub#rate\_limit to return all of the information from the /rate\_limit endpoint.
- Catch missing attributes diff\_hunk, original\_commit\_id on ReviewComment.
- · Add support for the Emojis endpoint
- Note deprecation of a few object attributes
- Add support for the ReleaseEvent
- Add GitHub#iter\_user\_teams to return all of the teams the authenticated user belongs to

#### 0.7.1: 2013-09-30

- Add dependency on uritemplate.py to add URITemplates to different classes. See the documentation for attributes which are templates.
- Fixed issue trying to parse html\_url on Pull Requests courtesy of @rogerhu.
- Remove expecter as a test dependency courtesy of @esacteksab.
- Fixed issue #141 trying to find an Event that doesn't exist.

#### 0.7.0: 2013-05-19

- Fix Issue.close, Issue.reopen, and Issue.assign. (Issue #106)
- Add check\_authorization to the GitHub class to cover the new part of the API.
- Add create\_file, update\_file, delete\_file, iter\_contributor\_statistics, iter\_commit\_activity, iter\_code\_frequency and weekly\_commit\_count to the Repository object.
- Add update and delete methods to the Contents object.
- Add is\_following to the User object.
- Add head, base parameters to Repository.iter\_pulls.
- The signature of Hook.edit has changed since that endpoint has changed as well. See: github/developer.github.com@b95f291a47954154a6a8cd7c2296cdda9b610164
- github3.GitHub can now be used as a context manager, e.g.,

```
with github.GitHub() as gh:
    u = gh.user('sigmavirus24')
```

#### 0.6.1: 2013-04-06

• Add equality for labels courtesy of Alejandro Gomez (@alejandrogomez)

#### 0.6.0: 2013-04-05

- Add sort and order parameters to github3.GitHub.search\_users and github3.GitHub. search\_repos.
- Add iter\_commits to github3.gists.Gist as a means of re-requesting just the history from GitHub and iterating over it.
- Add minimal logging (e.g., logging.getLogger('github3'))
- Re-organize the library a bit. (Split up repos.py, issues.py, gists.py and a few others into sub-modules for my sanity.)
- Calling refresh (True) on a github3.structs.GitHubIterator actually works as expected now.
- API iter\_ methods now accept the etag argument as the GitHub.iter\_ methods do.
- Make github3.octocat and github3.github.GitHub.octocat both support sending messages to make the Octocat say things. (Think cowsay)
- Remove vendored dependency of PySO8601.
- Split GitHub.iter\_repos into GitHub.iter\_user\_repos and GitHub.iter\_repos. As a consequence github3.iter\_repos is now github3.iter\_user\_repos
- IssueComment.update was corrected to match GitHub's documentation
- github3.login now accepts an optional url parameter for users of the GitHubEnterprise API, courtesy of Kristian Glass (@doismellburning)
- Several classes now allow their instances to be compared with == and !=. In most cases this will check the unique id provided by GitHub. In others, it will check SHAs and any other guaranteed immutable and unique attribute. The class doc-strings all have information about this and details about how equivalence is determined.

#### 0.5.3: 2013-03-19

· Add missing optional parameter to Repository.contents. Thanks @tpetr

#### 0.5.2: 2013-03-02

• Stop trying to decode the byte strings returned by b64decode. Fixes #72

#### 0.5.1: 2013-02-21

· Hot fix an issue when a user doesn't have a real name set

#### 0.5: 2013-02-16

- 100% (mock) test coverage
- Add support for the announced meta endpoint.

• Add support for conditional refreshing, e.g.,

• Add support for conditional iterables. What this means is that you can do:

```
import github3
i = github3.iter_all_repos(10)
for repo in i:
    # do stuff
i = github3.iter_all_repos(10, etag=i.etag)
```

And the second call will only give you the new repositories since the last request. This mimics behavior in pengwynn/octokit

- Add support for sortable stars.
- In github3.users.User, iter\_keys now allows you to iterate over **any** user's keys. No name is returned for each key. This is the equivalent of visiting: github.com/:user.keys
- In github3.repos.Repository, pubsubhubbub has been removed. Use github3.github.Github.pubsubhubbub instead
- In github3.api, iter\_repo\_issues's signature has been corrected.
- Remove list\_{labels, comments, events} methods from github3.issues.Issue
- Remove list\_{comments, commits, files} methods from github3.pulls.PullRequest
- In github3.gists.Gist:
  - the user attribute was changed by GitHub and is now the owner attribute
  - the public attribute and the is\_public method return the same information. The method will be removed in the next version.
  - the is\_starred method now requires authentication
  - the default refresh method is no longer over-ridden. In a change made in before, a generic refresh
    method was added to most objects. This was overridden in the Gist object and would cause otherwise
    unexpected results.
- github3.events.Event.is\_public() and github3.events.Event.public now return the same information. In the next version, the former will be removed.
- In github3.issues.Issue
  - add\_labels now returns the list of Labels on the issue instead of a boolean.
  - remove\_label now returns a boolean.

- remove\_all\_labels and replace\_labels now return lists. The former should return an empty list on a successful call. The latter should return a list of github3.issue.Label objects.
- Now we won't get spurious GitHubErrors on 404s, only on other expected errors whilst accessing the json in a response. All methods that return an object can now *actually* return None if it gets a 404 instead of just raising an exception. (Inspired by #49)
- GitHubStatus API now works.

#### 0.4: 2013-01-16

- In github3.legacy.LegacyRepo
  - has\_{downloads, issues, wiki} are now attributes.
  - is\_private() and the private attribute return the same thing is\_private() will be deprecated in the next release.
- In github3.repos.Repository
  - is\_fork () is now deprecated in favor of the fork attribute
  - is\_private() is now deprecated in favor of the private attribute
- In github3.repos.Hook
  - is\_active() is now deprecated in favor of the active attribute
- In github3.pulls.PullRequest
  - is\_mergeable() is now deprecated in favor of the mergeable attribute
- In github3.notifications.Thread
  - is\_unread() is now deprecated in favor of the unread
- pubsubhubbub() is now present on the GitHub object and will be removed from the Repository object in the next release
- 70% test coverage

#### 0.3: 2013-01-01

- In github3.repos.Repository
  - is\_fork() and fork return the same thing
  - is\_private() and private return the same thing as well
  - has\_downloads, has\_issues, has\_wiki are now straight attributes
- In github3.repos.Hook
  - is\_active() and active return the same value
- In github3.pulls.PullRequest
  - is\_mergeable() and mergeable are now the same
  - repository now returns a tuple of the login and name of the repository it belongs to
- In github3.notifications.Thread
  - is\_unread() and unread are now the same

- In github3.gists
  - GistFile.filename and GistFile.name return the same information
  - Gist.history now lists the history of the gist
  - GistHistory is an object representing one commit or version of the history
  - You can retrieve gists at a specific version with GistHistory.get\_gist()
- github3.orgs.Organization.iter\_repos now accepts all types
- · list\_\* methods on Organization objects that were missed are now deleted
- Some objects now have \_\_str\_\_ methods. You can now do things like:

```
import github3
u = github3.user('sigmavirus24')
r = github3.repository(u, 'github3.py')
```

And

#### import github3

```
r = github3.repository('sigmavirus24', 'github3.py')
```

```
template = """Some kind of template where you mention this repository
{0}"""
```

```
print(template.format(r))
# Some kind of template where you mention this repository
# sigmavirus24/github3.py
```

Current list of objects with this feature:

- github3.users.User (uses the login name)
- github3.users.Key (uses the key text)
- github3.users.Repository (uses the login/name pair)
- github3.users.RepoTag (uses the tag name)
- github3.users.Contents (uses the decoded content)
- 60% test coverage with mock
- Upgrade to requests 1.0.x

#### 0.2: 2012-11-21

- MAJOR API CHANGES:
  - GitHub.iter\_subscribed -> GitHub.iter\_subscriptions
  - Broken list\_\* functions in github3.api have been renamed to the correct iter\_\* methods on GitHub.
  - Removed list\_\* functions from Repository, Gist, Organization, and User objects
- Added zen of GitHub method.
- More tests

- Changed the way Repository.edit works courtesy of Kristian Glass (@doismellburning)
- Changed Repository.contents behaviour when acting on a 404.
- 50% test coverage via mock tests

#### 0.1: 2012-11-13

• Add API for GitHub Enterprise customers.

#### 0.1b2: 2012-11-10

- Handle 500 errors better, courtesy of Kristian Glass (@doismellburning)
- Handle sending json with % symbols better, courtesy of Kristian Glass
- Correctly handle non-GitHub committers and authors courtesy of Paul Swartz (@paulswartz)
- Correctly display method signatures in documentation courtesy of (@seveas)

#### 0.1b1: 2012-10-31

- unit tests implemented using mock instead of hitting the GitHub API (#37)
- removed list\_\* functions from GitHub object
- Notifications API coverage

#### 0.1b0: 2012-10-06

- Support for the complete GitHub API (accomplished)
  - Now also includes the Statuses API
  - Also covers the auto\_init parameters to the Repository creation methodology
  - Limited implementation of iterators in the place of list functions.
- 98% coverage by unit tests

# CHAPTER 7

Testimonials

# Python Module Index

### g

github3,158 github3.api,17 github3.auths, 27 github3.decorators, 166 github3.events, 30 github3.gists.comment, 36 github3.gists.file,37 github3.gists.gist,33 github3.gists.history,39 github3.git,40 github3.github, 53 github3.issues.comment,80 github3.issues.event,82 github3.issues.issue,76 github3.issues.label,86 github3.issues.milestone,83 github3.models,87 github3.notifications,89 github3.orgs,94 github3.pulls, 105 github3.repos.branch, 140 github3.repos.comment, 150 github3.repos.commit, 152 github3.repos.comparison, 152 github3.repos.contents, 141 github3.repos.deployment, 142 github3.repos.hook, 148 github3.repos.imported\_issue, 149 github3.repos.pages, 149 github3.repos.release, 144 github3.repos.repo,116 github3.repos.stats, 153 github3.repos.status, 153 github3.repos.tag, 150 github3.search, 154 github3.structs, 155 github3.users, 158

# Index

as dict() (github3.gists.file.GistFile method), 38

## A

as dict() (github3.gists.gist.Gist method), 33 active (github3.repos.hook.Hook attribute), 148 as dict() (github3.gists.history.GistHistory method), 39 actor (github3.events.Event attribute), 31 as dict() (github3.git.Blob method), 41 actor (github3.issues.event.IssueEvent attribute), 82 as\_dict() (github3.git.Commit method), 44 (github3.repos.repo.Repository add collaborator() as dict() (github3.git.CommitTree method), 52 method), 117 as\_dict() (github3.git.GitObject method), 45 add\_email\_addresses() (github3.github.GitHub method), as\_dict() (github3.git.Hash method), 47 54 as\_dict() (github3.git.Reference method), 48 add labels() (github3.issues.issue.Issue method), 76 as\_dict() (github3.git.ShortCommit method), 43 add\_member() (github3.orgs.Organization method), 95 as\_dict() (github3.git.Tag method), 50 add\_member() (github3.orgs.Team method), 102 as\_dict() (github3.git.Tree method), 51 add\_repository() (github3.orgs.Organization method), 95 as\_dict() (github3.github.GitHub method), 55 add\_repository() (github3.orgs.Team method), 102 as\_dict() (github3.issues.comment.IssueComment add\_scopes() (github3.auths.Authorization method), 28 method), 80 additions (github3.gists.history.GistHistory attribute), 39 as\_dict() (github3.issues.event.IssueEvent method), 82 additions\_count (github3.pulls.PullFile attribute), 113 as dict() (github3.issues.issue.Issue method), 76 additions\_count (github3.pulls.PullRequest attribute), as dict() (github3.issues.label.Label method), 86 105 as dict() (github3.issues.milestone.Milestone method), admin\_stats() (github3.github.GitHubEnterprise method), 84 75 as\_dict() (github3.models.GitHubCore method), 88 all events() (github3.github.GitHub method), 54 (github3.notifications.RepositorySubscription as\_dict() all events() (github3.orgs.Organization method), 96 method), 91 all\_events() (in module github3), 20 as\_dict() (github3.notifications.Thread method), 89 all organizations() (github3.github.GitHub method), 54 (github3.notifications.ThreadSubscription as dict() all\_repositories() (github3.github.GitHub method), 54 method), 93 all repositories() (in module github3), 19 as\_dict() (github3.orgs.Organization method), 96 all\_users() (github3.github.GitHub method), 55 as\_dict() (github3.orgs.Team method), 102 all\_users() (in module github3), 20 as\_dict() (github3.pulls.PullDestination method), 112 alternate\_weeks (github3.repos.stats.ContributorStats atas dict() (github3.pulls.PullFile method), 114 tribute), 154 as\_dict() (github3.pulls.PullRequest method), 106 api() (github3.github.GitHubStatus method), 75 as dict() (github3.pulls.ReviewComment method), 110 app (github3.auths.Authorization attribute), 28 as\_dict() (github3.repos.comment.RepoComment archive() (github3.repos.release.Release method), 145 method), 150 archive() (github3.repos.repo.Repository method), 117 as dict() (github3.repos.repo.Repository method), 118 archived (github3.repos.repo.Repository attribute), 116 as dict() (github3.repos.repo.StarredRepository method), as\_dict() (github3.auths.Authorization method), 29 139 as dict() (github3.events.Event method), 31 as\_dict() (github3.structs.GitHubIterator method), 156 as dict() (github3.gists.comment.GistComment method), as\_dict() (github3.structs.SearchIterator method), 157 36 as dict() (github3.users.Key method), 163

- as\_dict() (github3.users.Plan method), 165
- as\_dict() (github3.users.User method), 159
- as\_json() (github3.auths.Authorization method), 29
- as\_json() (github3.events.Event method), 31
- as\_json() (github3.gists.comment.GistComment method), 36
- as\_json() (github3.gists.file.GistFile method), 38
- as\_json() (github3.gists.gist.Gist method), 33
- as\_json() (github3.gists.history.GistHistory method), 39
- as\_json() (github3.git.Blob method), 41
- as\_json() (github3.git.Commit method), 44
- as\_json() (github3.git.CommitTree method), 52
- as\_json() (github3.git.GitObject method), 46
- as\_json() (github3.git.Hash method), 47
- as\_json() (github3.git.Reference method), 48
- as\_json() (github3.git.ShortCommit method), 43
- as\_json() (github3.git.Tag method), 50
- as\_json() (github3.git.Tree method), 51
- as\_json() (github3.github.GitHub method), 55
- as\_json() (github3.issues.comment.IssueComment method), 81
- as\_json() (github3.issues.event.IssueEvent method), 83
- as\_json() (github3.issues.issue.Issue method), 77
- as\_json() (github3.issues.label.Label method), 86
- as\_json() (github3.issues.milestone.Milestone method), 84
- as\_json() (github3.models.GitHubCore method), 88
- as\_json() (github3.notifications.RepositorySubscription method), 91
- as\_json() (github3.notifications.Thread method), 89
- as\_json() (github3.notifications.ThreadSubscription method), 93
- as\_json() (github3.orgs.Organization method), 96
- as\_json() (github3.orgs.Team method), 102
- as\_json() (github3.pulls.PullDestination method), 112
- as\_json() (github3.pulls.PullFile method), 114
- as\_json() (github3.pulls.PullRequest method), 106
- as\_json() (github3.pulls.ReviewComment method), 110
- as\_json() (github3.repos.comment.RepoComment method), 151
- as\_json() (github3.repos.repo.Repository method), 118
- as\_json() (github3.repos.repo.StarredRepository method), 140
- as\_json() (github3.structs.GitHubIterator method), 156
- as\_json() (github3.structs.SearchIterator method), 157
- as\_json() (github3.users.Key method), 164
- as\_json() (github3.users.Plan method), 165
- as\_json() (github3.users.User method), 159
- Asset (class in github3.repos.release), 146
- asset() (github3.repos.release.Release method), 145
- asset() (github3.repos.repo.Repository method), 118
- assets() (github3.repos.release.Release method), 145
- assets\_url (github3.repos.release.Release attribute), 144 assign() (github3.issues.issue.Issue method), 77

- assignees() (github3.repos.repo.Repository method), 118
- author (github3.git.ShortCommit attribute), 42
- author (github3.repos.release.Release attribute), 144
- author (github3.repos.stats.ContributorStats attribute), 153
- author\_association (github3.gists.comment.GistComment attribute), 36
- author\_association (github3.issues.comment.IssueComment attribute), 80
- author\_association (github3.pulls.ReviewComment attribute), 110
- Authorization (class in github3.auths), 27
- authorization() (github3.github.GitHub method), 55
- authorizations() (github3.github.GitHub method), 55
- authorize() (github3.github.GitHub method), 56
- authorize() (in module github3), 18

### В

- base\_commit (github3.repos.comparison.Comparison attribute), 152
- behind\_by (github3.repos.comparison.Comparison attribute), 152
- bio (github3.users.User attribute), 158
- Blob (class in github3.git), 41
- blob() (github3.repos.repo.Repository method), 118
- blob\_url (github3.pulls.PullFile attribute), 113
- blog (github3.orgs.Organization attribute), 95
- blog (github3.users.User attribute), 158
- body (github3.gists.comment.GistComment attribute), 36
- body (github3.issues.comment.IssueComment attribute), 80
- body (github3.pulls.ReviewComment attribute), 110
- body (github3.repos.release.Release attribute), 144
- body\_html (github3.gists.comment.GistComment attribute), 36
- body\_html (github3.issues.comment.IssueComment attribute), 80
- body\_html (github3.issues.issue.Issue attribute), 76
- body\_html (github3.pulls.ReviewComment attribute), 110
- body\_html (github3.repos.comment.RepoComment attribute), 150
- body\_text (github3.gists.comment.GistComment attribute), 36
- body\_text (github3.issues.comment.IssueComment attribute), 80
- body\_text (github3.issues.issue.Issue attribute), 76
- body\_text (github3.pulls.ReviewComment attribute), 110 body\_text (github3.repos.comment.RepoComment attribute), 150
- Branch (class in github3.repos.branch), 140
- branch() (github3.repos.repo.Repository method), 118
- branches() (github3.repos.repo.Repository method), 118

browser\_download\_url (github3.repos.release.Asset attribute), 147

## С

change status (github3.gists.history.GistHistory attribute), 39 changes count (github3.pulls.PullFile attribute), 113 check\_authorization() (github3.github.GitHub method), 56 clone url (github3.repos.repo.Repository attribute), 116 close() (github3.issues.issue.Issue method), 77 close() (github3.pulls.PullRequest method), 106 closed by (github3.issues.issue.Issue attribute), 76 closed\_issues\_count (github3.issues.milestone.Milestone attribute), 84 cls (github3.structs.GitHubIterator attribute), 156 cname (github3.repos.pages.PagesInfo attribute), 149 (github3.repos.repo.Repository code frequency() method), 119 CodeSearchResult (class in github3.search), 154 collaborators() (github3.repos.repo.Repository method), 119 collaborators\_count (github3.users.Plan attribute), 165 CombinedStatus (class in github3.repos.status), 153 comment() (github3.issues.issue.Issue method), 77 comments() (github3.gists.gist.Gist method), 33 comments() (github3.issues.issue.Issue method), 77 comments() (github3.repos.repo.Repository method), 119 comments\_count (github3.pulls.PullRequest attribute), 105 Commit (class in github3.git), 44 commit (github3.repos.pages.PagesBuild attribute), 149 commit (github3.repos.tag.RepoTag attribute), 150 commit() (github3.repos.repo.Repository method), 119 commit\_activity() (github3.repos.repo.Repository method). 120 commit\_comment() (github3.repos.repo.Repository method), 120commit id (github3.issues.event.IssueEvent attribute), 82 commit id (github3.pulls.ReviewComment attribute), 110 commit\_url (github3.issues.event.IssueEvent attribute), 82 commit\_url (github3.repos.status.CombinedStatus attribute), 153 (github3.repos.comparison.Comparison commits attribute), 152 commits() (github3.gists.gist.Gist method), 34 commits() (github3.pulls.PullRequest method), 106 commits() (github3.repos.repo.Repository method), 120 commits count (github3.pulls.PullRequest attribute), 105 commits\_url (github3.gists.gist.Gist attribute), 33 committed at (github3.gists.history.GistHistory attribute), 39

committer (github3.git.ShortCommit attribute), 43 CommitTree (class in github3.git), 52 company (github3.orgs.Organization attribute), 95 company (github3.users.User attribute), 158 (github3.repos.repo.Repository compare commits() method), 121 Comparison (class in github3.repos.comparison), 152 conceal member() (github3.orgs.Organization method), 96 config (github3.repos.hook.Hook attribute), 148 content (github3.git.Blob attribute), 41 content (github3.repos.contents.Contents attribute), 141 content() (github3.gists.file.GistFile method), 38 content\_type (github3.repos.release.Asset attribute), 147 Contents (class in github3.repos.contents), 141 contents() (github3.pulls.PullFile method), 114 contents\_url (github3.pulls.PullFile attribute), 113 contributor statistics() (github3.repos.repo.Repository method), 121 contributors() (github3.repos.repo.Repository method), 121 ContributorStats (class in github3.repos.stats), 153 count (github3.structs.GitHubIterator attribute), 156 create blob() (github3.repos.repo.Repository method), 121 create comment() (github3.gists.gist.Gist method), 34 create\_comment() (github3.issues.issue.Issue method), 77 create\_comment() (github3.pulls.PullRequest method), 106 create\_comment() (github3.repos.repo.Repository method), 122 (github3.repos.repo.Repository create\_commit() method), 122 (github3.repos.repo.Repository create deployment() method). 122 create file() (github3.repos.repo.Repository method), 123 create fork() (github3.repos.repo.Repository method), 123 create\_gist() (github3.github.GitHub method), 56 create gist() (in module github3), 18 create hook() (github3.repos.repo.Repository method), 123 create\_issue() (github3.github.GitHub method), 56 create\_issue() (github3.repos.repo.Repository method), 123 create\_key() (github3.github.GitHub method), 57 create\_key() (github3.repos.repo.Repository method), 124 create\_label() (github3.repos.repo.Repository method), 124 create milestone() (github3.repos.repo.Repository method). 124

create project() (github3.orgs.Organization method), 96

- create\_project() (github3.repos.repo.Repository method), 124
- create\_pull() (github3.repos.repo.Repository method), 125
- create\_pull\_from\_issue() (github3.repos.repo.Repository method), 125
- create\_ref() (github3.repos.repo.Repository method), 125
- create\_release() (github3.repos.repo.Repository method), 125
- create\_repository() (github3.github.GitHub method), 57
- create\_repository() (github3.orgs.Organization method), 97
- create\_review\_comment() (github3.pulls.PullRequest method), 106
- create\_status() (github3.repos.deployment.Deployment method), 143
- create\_status() (github3.repos.repo.Repository method), 126
- create\_tag() (github3.repos.repo.Repository method), 126 create\_team() (github3.orgs.Organization method), 97
- create\_tree() (github3.repos.repo.Repository method), 126
- create\_user() (github3.github.GitHubEnterprise method), 75
- created\_at (github3.auths.Authorization attribute), 28
- created\_at (github3.events.Event attribute), 31
- created\_at (github3.gists.comment.GistComment attribute), 36
- created\_at (github3.issues.comment.IssueComment attribute), 80
- created\_at (github3.issues.event.IssueEvent attribute), 82
- created\_at (github3.issues.milestone.Milestone attribute), 84
- created\_at (github3.notifications.RepositorySubscription attribute), 91
- created\_at (github3.notifications.ThreadSubscription attribute), 93
- created\_at (github3.orgs.Organization attribute), 95 created\_at (github3.orgs.Team attribute), 101
- created\_at (github3.pulls.ReviewComment attribute), 110
- created\_at (github3.repos.deployment.Deployment attribute), 143
- created\_at (github3.repos.deployment.DeploymentStatus attribute), 144
- created\_at (github3.repos.hook.Hook attribute), 148
- created\_at (github3.repos.issue\_import.ImportedIssue attribute), 149
- created\_at (github3.repos.pages.PagesBuild attribute), 149
- created\_at (github3.repos.release.Asset attribute), 147
- created\_at (github3.repos.release.Release attribute), 144 created\_at (github3.repos.repo.Repository attribute), 116
- created at (github3.users.User attribute), 158

creator (github3.issues.milestone.Milestone attribute), 84

- creator (github3.repos.deployment.Deployment attribute), 143
- creator (github3.repos.deployment.DeploymentStatus attribute), 144
- creator (github3.repos.status.Status attribute), 153
- custom\_404 (github3.repos.pages.PagesInfo attribute), 149

### D

- decode\_content() (github3.git.Blob method), 41
- decoded (github3.git.Blob attribute), 42
- decoded (github3.repos.contents.Contents attribute), 141
- default\_branch (github3.repos.repo.Repository attribute), 116
- delete() (github3.auths.Authorization method), 29
- delete() (github3.gists.comment.GistComment method), 37
- delete() (github3.gists.gist.Gist method), 34
- delete() (github3.git.Reference method), 48
- delete() (github3.issues.comment.IssueComment method), 81
- delete() (github3.issues.label.Label method), 86
- delete() (github3.issues.milestone.Milestone method), 84
- delete() (github3.notifications.RepositorySubscription method), 92
- delete() (github3.notifications.ThreadSubscription method), 93
- delete() (github3.orgs.Team method), 102
- delete() (github3.pulls.ReviewComment method), 111
- delete() (github3.repos.comment.RepoComment method), 151
- delete() (github3.repos.contents.Contents method), 142
- delete() (github3.repos.hook.Hook method), 148
- delete() (github3.repos.release.Asset method), 147
- delete() (github3.repos.release.Release method), 145
- delete() (github3.repos.repo.Repository method), 127
- delete() (github3.users.Key method), 164
- delete() (github3.users.User method), 159
- delete\_email\_addresses() (github3.github.GitHub method), 58
- delete\_key() (github3.repos.repo.Repository method), 127
- delete\_subscription() (github3.notifications.Thread method), 90
- delete\_subscription() (github3.repos.repo.Repository method), 127
- deletions (github3.gists.history.GistHistory attribute), 39
- deletions\_count (github3.pulls.PullFile attribute), 113
- deletions\_count (github3.pulls.PullRequest attribute), 105 demote() (github3.users.User method), 159
- Deployment (class in github3.repos.deployment), 142
- deployment() (github3.repos.repo.Repository method), 127

- deployment\_url (github3.repos.deployment.DeploymentStat**ers**ent (github3.issues.event.IssueEvent attribute), 82 attribute), 144 events (github3.repos.hook.Hook attribute), 148
- deployments() (github3.repos.repo.Repository method), 127
- DeploymentStatus (class in github3.repos.deployment), 144
- description (github3.issues.milestone.Milestone attribute), 84
- description (github3.repos.deployment.Deployment attribute), 143
- description (github3.repos.deployment.DeploymentStatus attribute), 144
- diff() (github3.pulls.PullRequest method), 107
- diff() (github3.repos.comparison.Comparison method), 152
- diff\_hunk (github3.pulls.ReviewComment attribute), 110
- diff\_url (github3.repos.comparison.Comparison attribute), 152
- directory\_contents() (github3.repos.repo.Repository method), 127
- download() (github3.repos.release.Asset method), 147
- download\_count (github3.repos.release.Asset attribute), 147

download\_url (github3.repos.release.Asset attribute), 147

draft (github3.repos.release.Release attribute), 144

due\_on (github3.issues.milestone.Milestone attribute), 84 duration (github3.repos.pages.PagesBuild attribute), 149

# Е

- edit() (github3.gists.comment.GistComment method), 37
- edit() (github3.gists.gist.Gist method), 34
- edit() (github3.issues.comment.IssueComment method), 81
- edit() (github3.issues.issue.Issue method), 78
- edit() (github3.orgs.Organization method), 98
- edit() (github3.orgs.Team method), 102
- edit() (github3.pulls.ReviewComment method), 111
- edit() (github3.repos.comment.RepoComment method), 151
- edit() (github3.repos.hook.Hook method), 148
- edit() (github3.repos.release.Asset method), 147
- edit() (github3.repos.release.Release method), 146
- edit() (github3.repos.repo.Repository method), 128
- email (github3.orgs.Organization attribute), 95
- email (github3.users.User attribute), 158
- emails() (github3.github.GitHub method), 58
- emojis() (github3.github.GitHub method), 58
- encoding (github3.git.Blob attribute), 41
- encoding (github3.repos.contents.Contents attribute), 141
- environment (github3.repos.deployment.Deployment attribute), 143
- error (github3.repos.pages.PagesBuild attribute), 150 etag (github3.structs.GitHubIterator attribute), 156 Event (class in github3.events), 30

tersent (github3.issues.event.IssueEvent attribute), 82 events (github3.repos.hook.Hook attribute), 148 events() (github3.issues.issue.Issue method), 78 events() (github3.orgs.Organization method), 98 events() (github3.repos.repo.Repository method), 128 events() (github3.users.User method), 159

### F

feeds() (github3.github.GitHub method), 58 file\_contents() (github3.repos.repo.Repository method), 129

- filename (github3.pulls.PullFile attribute), 113 files (github3.repos.comparison.Comparison attribute), 152
- files() (github3.pulls.PullRequest method), 107 fingerprint (github3.auths.Authorization attribute), 28 follow() (github3.github.GitHub method), 58
- followed\_by() (github3.github.GitHub method), 58

followed\_by() (in module github3), 20

- followers() (github3.github.GitHub method), 59
- followers() (github3.users.User method), 160
- followers\_count (github3.orgs.Organization attribute), 95
- followers\_count (github3.users.User attribute), 158 followers of() (github3.github.GitHub method), 59
- followers of() (in module github3), 20
- following() (github3.github.GitHub method), 59
- following() (github3.users.User method), 160
- following count (github3.orgs.Organization attribute), 95
- following\_count (github3.users.User attribute), 158
- fork() (github3.gists.gist.Gist method), 34
- forks() (github3.gists.gist.Gist method), 35
- forks() (github3.repos.repo.Repository method), 129
- forks\_count (github3.repos.repo.Repository attribute), 116
- forks\_url (github3.gists.gist.Gist attribute), 33
- from\_dict() (github3.auths.Authorization method), 29
- from\_dict() (github3.events.Event method), 31
- from\_dict() (github3.gists.comment.GistComment method), 37
- from\_dict() (github3.gists.file.GistFile method), 38
- from\_dict() (github3.gists.gist.Gist method), 35
- from\_dict() (github3.gists.history.GistHistory method), 40
- from\_dict() (github3.git.Blob method), 42
- from\_dict() (github3.git.Commit method), 44
- from\_dict() (github3.git.CommitTree method), 53
- from\_dict() (github3.git.GitObject method), 46
- from\_dict() (github3.git.Hash method), 47
- from\_dict() (github3.git.Reference method), 49
- from\_dict() (github3.git.ShortCommit method), 43
- from\_dict() (github3.git.Tag method), 50
- from\_dict() (github3.git.Tree method), 51
- from\_dict() (github3.github.GitHub method), 59

- from\_dict() (github3.issues.comment.IssueComment from\_json() method), 81 method
- from\_dict() (github3.issues.event.IssueEvent method), 83
- from\_dict() (github3.issues.issue.Issue method), 78
- from\_dict() (github3.issues.label.Label method), 86
- from\_dict() (github3.issues.milestone.Milestone method), 85
- from\_dict() (github3.models.GitHubCore class method), 88
- from\_dict() (github3.notifications.RepositorySubscription method), 92
- from\_dict() (github3.notifications.Thread method), 90
- from\_dict() (github3.notifications.ThreadSubscription method), 93
- from\_dict() (github3.orgs.Organization method), 98
- from\_dict() (github3.orgs.Team method), 103
- from\_dict() (github3.pulls.PullDestination method), 112
- from dict() (github3.pulls.PullFile method), 114
- from\_dict() (github3.pulls.PullRequest method), 107
- from\_dict() (github3.pulls.ReviewComment method), 111
- from\_dict() (github3.repos.comment.RepoComment method), 151
- from\_dict() (github3.repos.repo.Repository method), 129
- from\_dict() (github3.repos.repo.StarredRepository method), 140
- from\_dict() (github3.structs.GitHubIterator method), 156
- from\_dict() (github3.structs.SearchIterator method), 157
- from\_dict() (github3.users.Key method), 164
- from\_dict() (github3.users.Plan method), 165
- from\_dict() (github3.users.User method), 160
- from\_json() (github3.auths.Authorization method), 29
- from\_json() (github3.events.Event method), 32
- from\_json() (github3.gists.comment.GistComment method), 37
- from\_json() (github3.gists.file.GistFile method), 38
- from\_json() (github3.gists.gist.Gist method), 35
- from\_json() (github3.gists.history.GistHistory method), 40
- from\_json() (github3.git.Blob method), 42
- from\_json() (github3.git.Commit method), 45
- from\_json() (github3.git.CommitTree method), 53
- from json() (github3.git.GitObject method), 46
- from\_json() (github3.git.Hash method), 47
- from\_json() (github3.git.Reference method), 49
- from\_json() (github3.git.ShortCommit method), 43
- from\_json() (github3.git.Tag method), 50
- from\_json() (github3.git.Tree method), 51
- from\_json() (github3.github.GitHub method), 60
- from\_json() (github3.issues.comment.IssueComment method), 81
- from\_json() (github3.issues.event.IssueEvent method), 83 from\_json() (github3.issues.issue.Issue method), 78
- from json() (github3.issues.label.Label method), 87

- rom\_json() (github3.issues.milestone.Milestone method), 85
- from\_json() (github3.models.GitHubCore class method), 88
- from\_json() (github3.notifications.RepositorySubscription method), 92
- from\_json() (github3.notifications.Thread method), 90
- from\_json() (github3.notifications.ThreadSubscription method), 93
- from\_json() (github3.orgs.Organization method), 98
- from\_json() (github3.orgs.Team method), 103
- from\_json() (github3.pulls.PullDestination method), 113
- from\_json() (github3.pulls.PullFile method), 114
- from\_json() (github3.pulls.PullRequest method), 107
- from\_json() (github3.pulls.ReviewComment method), 111
- from\_json() (github3.repos.comment.RepoComment method), 151
- from\_json() (github3.repos.repo.Repository method), 129
- from\_json() (github3.repos.repo.StarredRepository method), 140
- from\_json() (github3.structs.GitHubIterator method), 156
- from\_json() (github3.structs.SearchIterator method), 157
- from\_json() (github3.users.Key method), 164
- from\_json() (github3.users.Plan method), 165
- from\_json() (github3.users.User method), 160

### G

- Gist (class in github3.gists.gist), 33
- gist() (github3.gists.history.GistHistory method), 40
- gist() (github3.github.GitHub method), 60
- gist() (in module github3), 18
- GistComment (class in github3.gists.comment), 36
- GistFile (class in github3.gists.file), 37
- GistHistory (class in github3.gists.history), 39
- gists() (github3.github.GitHub method), 60
- gists\_by() (github3.github.GitHub method), 60
- gists\_by() (in module github3), 21
- git\_commit() (github3.repos.repo.Repository method), 129
- git url (github3.repos.contents.Contents attribute), 141
- git\_url (github3.repos.repo.Repository attribute), 116

git\_url (github3.search.CodeSearchResult attribute), 154

- GitHub (class in github3.github), 53
- github3 (module), 17, 27, 30, 33, 40, 53, 76, 87, 89, 94, 105, 115, 154, 155, 158, 166
- github3.api (module), 17
- github3.auths (module), 27
- github3.decorators (module), 166
- github3.events (module), 30
- github3.gists.comment (module), 36
- github3.gists.file (module), 37
- github3.gists.gist (module), 33
- github3.gists.history (module), 39

github3.git (module), 40 github3.github (module), 53 github3.issues.comment (module), 80 github3.issues.event (module), 82 github3.issues.issue (module), 76 github3.issues.label (module), 86 github3.issues.milestone (module), 83 github3.models (module), 87 github3.notifications (module), 89 github3.orgs (module), 94 github3.pulls (module), 105 github3.repos.branch (module), 140 github3.repos.comment (module), 150 github3.repos.commit (module), 152 github3.repos.comparison (module), 152 github3.repos.contents (module), 141 github3.repos.deployment (module), 142 github3.repos.hook (module), 148 github3.repos.imported issue (module), 149 github3.repos.pages (module), 149 github3.repos.release (module), 144 github3.repos.repo (module), 116 github3.repos.stats (module), 153 github3.repos.status (module), 153 github3.repos.tag (module), 150 github3.search (module), 154 github3.structs (module), 155 github3.users (module), 158 GitHubCore (class in github3.models), 87 GitHubEnterprise (class in github3.github), 75 GitHubIterator (class in github3.structs), 156 GitHubStatus (class in github3.github), 75 gitignore\_template() (github3.github.GitHub method), 60 gitignore\_template() (in module github3), 18 gitignore templates() (github3.github.GitHub method), 60 gitignore templates() (in module github3), 19 GitObject (class in github3.git), 45

### Η

has\_downloads (github3.repos.repo.Repository attribute), 116 has\_issues (github3.repos.repo.Repository attribute), 116 has\_pages (github3.repos.repo.Repository attribute), 116 has\_repository() (github3.orgs.Team method), 103 has\_wiki (github3.repos.repo.Repository attribute), 116 Hash (class in github3.git), 46 hashed\_token (github3.auths.Authorization attribute), 28 headers (github3.structs.GitHubIterator attribute), 156 hireable (github3.users.User attribute), 158 history (github3.gists.gist.Gist attribute), 33 homepage (github3.repos.repo.Repository attribute), 116 Hook (class in github3.repos.hook), 148 hook() (github3.repos.repo.Repository method), 129 hooks() (github3.repos.repo.Repository method), 129 html\_url (github3.issues.comment.IssueComment attribute), 80

- html\_url (github3.orgs.Organization attribute), 95
- html\_url (github3.pulls.ReviewComment attribute), 110
- html\_url (github3.repos.comparison.Comparison attribute), 152
- html\_url (github3.repos.contents.Contents attribute), 141
- html\_url (github3.repos.release.Release attribute), 144
- html\_url (github3.search.CodeSearchResult attribute), 154

### I

- id (github3.auths.Authorization attribute), 28
- id (github3.events.Event attribute), 31
- id (github3.gists.comment.GistComment attribute), 36
- id (github3.issues.comment.IssueComment attribute), 80
- id (github3.issues.event.IssueEvent attribute), 82
- id (github3.issues.milestone.Milestone attribute), 84
- id (github3.notifications.Thread attribute), 89
- id (github3.pulls.ReviewComment attribute), 110
- id (github3.repos.deployment.Deployment attribute), 143
- id (github3.repos.deployment.DeploymentStatus attribute), 144
- id (github3.repos.hook.Hook attribute), 148
- id (github3.repos.issue\_import.ImportedIssue attribute), 149
- id (github3.repos.release.Asset attribute), 147
- id (github3.repos.release.Release attribute), 144
- id (github3.users.Key attribute), 163
- ignore() (github3.repos.repo.Repository method), 129
- ignored (github3.notifications.RepositorySubscription attribute), 91
- ignored (github3.notifications.ThreadSubscription attribute), 93
- impersonate() (github3.users.User method), 160
- import\_issue() (github3.repos.repo.Repository method), 130
- import\_issues\_url (github3.repos.issue\_import.ImportedIssue attribute), 149
- imported\_issue() (github3.repos.repo.Repository method), 130
- imported\_issues() (github3.repos.repo.Repository method), 130
- ImportedIssue (class in github3.repos.issue\_import), 149 invite() (github3.orgs.Team method), 103
- is\_assignee() (github3.repos.repo.Repository method), 130
- is\_assignee\_on() (github3.users.User method), 160
- is\_closed() (github3.issues.issue.Issue method), 78
- is\_collaborator() (github3.repos.repo.Repository method), 131
- is\_following() (github3.github.GitHub method), 60
- is\_following() (github3.users.User method), 160

is free() (github3.users.Plan method), 165

is\_member() (github3.orgs.Organization method), 98 is member() (github3.orgs.Team method), 103 is\_merged() (github3.pulls.PullRequest method), 107 is public member() (github3.orgs.Organization method), 98 is starred() (github3.gists.gist.Gist method), 35 is starred() (github3.github.GitHub method), 61 Issue (class in github3.issues.issue), 76 issue (github3.search.IssueSearchResult attribute), 155 issue() (github3.github.GitHub method), 61 issue() (github3.pulls.PullRequest method), 107 issue() (github3.repos.repo.Repository method), 131 issue() (in module github3), 19 issue\_comments() (github3.pulls.PullRequest method), 107 issue\_events() (github3.repos.repo.Repository method), 131 issue\_url (github3.issues.comment.IssueComment attribute), 80 IssueComment (class in github3.issues.comment), 80 IssueEvent (class in github3.issues.event), 82 issues() (github3.github.GitHub method), 61 issues() (github3.repos.repo.Repository method), 131 issues on() (github3.github.GitHub method), 61 issues on() (in module github3), 19 IssueSearchResult (class in github3.search), 154 items (github3.structs.SearchIterator attribute), 157

# K

Key (class in github3.users), 163 key (github3.users.Key attribute), 163 key() (github3.github.GitHub method), 62 key() (github3.repos.repo.Repository method), 132 keys() (github3.github.GitHub method), 62 keys() (github3.repos.repo.Repository method), 132 keys() (github3.users.User method), 161

# L

Label (class in github3.issues.label), 86 label (github3.pulls.PullDestination attribute), 112 label (github3.repos.release.Asset attribute), 147 label() (github3.repos.repo.Repository method), 132 labels() (github3.issues.issue.Issue method), 78 labels() (github3.repos.repo.Repository method), 132 language (github3.repos.repo.Repository attribute), 116 languages() (github3.repos.repo.Repository method), 132 last\_message() (github3.github.GitHubStatus method), 75 last\_read\_at (github3.notifications.Thread attribute), 89 last\_response (github3.structs.GitHubIterator attribute), 156

last\_status (github3.structs.GitHubIterator attribute), 156 last\_url (github3.structs.GitHubIterator attribute), 156 latest\_pages\_build() (github3.repos.repo.Repository method), 132

latest\_release() (github3.repos.repo.Repository method), 133

#### license() (github3.github.GitHub method), 62

license() (github3.repos.repo.Repository method), 133 licenses() (github3.github.GitHub method), 62 links (github3.pulls.ReviewComment attribute), 110 links (github3.repos.branch.Branch attribute), 141 links (github3.repos.contents.Contents attribute), 141 list\_types() (github3.events.Event static method), 32 location (github3.orgs.Organization attribute), 95 location (github3.users.User attribute), 159 lock() (github3.issues.issue.Issue method), 78 login() (github3.github.GitHub method), 62 login() (in module github3), 17

# Μ

mark() (github3.notifications.Thread method), 90 mark notifications() (github3.repos.repo.Repository method), 133 markdown() (github3.github.GitHub method), 63 markdown() (in module github3), 22 me() (github3.github.GitHub method), 63 members() (github3.orgs.Organization method), 99 members() (github3.orgs.Team method), 103 members\_count (github3.orgs.Team attribute), 101 membership for() (github3.orgs.Team method), 103 membership\_in() (github3.github.GitHub method), 63 merge() (github3.pulls.PullRequest method), 108 merge() (github3.repos.repo.Repository method), 133 mergeable (github3.pulls.PullRequest attribute), 105 mergeable\_state (github3.pulls.PullRequest attribute), 105 merged (github3.pulls.PullRequest attribute), 105 merged by (github3.pulls.PullRequest attribute), 105 message (github3.git.ShortCommit attribute), 43 message (github3.git.Tag attribute), 50 messages() (github3.github.GitHubStatus method), 75 meta() (github3.github.GitHub method), 63 Milestone (class in github3.issues.milestone), 83 milestone() (github3.repos.repo.Repository method), 133 milestones() (github3.repos.repo.Repository method), 133

mirror\_url (github3.repos.repo.Repository attribute), 116 mode (github3.git.Hash attribute), 47

# Ν

name (github3.issues.label.Label attribute), 86 name (github3.orgs.Organization attribute), 95 name (github3.repos.contents.Contents attribute), 141 name (github3.repos.hook.Hook attribute), 148 name (github3.repos.release.Asset attribute), 147 name (github3.repos.release.Release attribute), 145 name (github3.repos.tag.RepoTag attribute), 150 name (github3.search.CodeSearchResult attribute), 154 name (github3.users.Plan attribute), 165 name (github3.users.User attribute), 159 network count (github3.repos.repo.Repository attribute), 116 network events() (github3.repos.repo.Repository method), 134 new session() (github3.auths.Authorization method), 29 new\_session() (github3.events.Event method), 32 new session() (github3.gists.comment.GistComment method), 37 new session() (github3.gists.file.GistFile method), 38 new\_session() (github3.gists.gist.Gist method), 35 new\_session() (github3.gists.history.GistHistory method), 40 new\_session() (github3.git.Blob method), 42 new session() (github3.git.Commit method), 45 new session() (github3.git.CommitTree method), 53 new session() (github3.git.GitObject method), 46 new\_session() (github3.git.Hash method), 47 new session() (github3.git.Reference method), 49 new\_session() (github3.git.ShortCommit method), 43 new session() (github3.git.Tag method), 50 new session() (github3.git.Tree method), 51 new session() (github3.github.GitHub method), 63 new\_session() (github3.issues.comment.IssueComment method), 81 new\_session() (github3.issues.event.IssueEvent method), 83 new\_session() (github3.issues.issue.Issue method), 79 new\_session() (github3.issues.label.Label method), 87 new\_session() (github3.issues.milestone.Milestone method), 85 new session() (github3.models.GitHubCore method), 88 new session() (github3.notifications.RepositorySubscription method), 92 new\_session() (github3.notifications.Thread method), 90 new session() (github3.notifications.ThreadSubscription method), 93 new session() (github3.orgs.Organization method), 99 new session() (github3.orgs.Team method), 104 new session() (github3.pulls.PullDestination method), 113 new\_session() (github3.pulls.PullFile method), 114 new\_session() (github3.pulls.PullRequest method), 108 new session() (github3.pulls.ReviewComment method), 111 new\_session() (github3.repos.comment.RepoComment method), 151 new\_session() (github3.repos.repo.Repository method), 134 new session() (github3.repos.repo.StarredRepository method), 140

new\_session() (github3.structs.GitHubIterator method), 156

new\_session() (github3.structs.SearchIterator method), 157

new\_session() (github3.users.Key method), 164

new\_session() (github3.users.Plan method), 165

new\_session() (github3.users.User method), 161

note (github3.auths.Authorization attribute), 28

note\_url (github3.auths.Authorization attribute), 28

notifications() (github3.github.GitHub method), 63

notifications() (github3.repos.repo.Repository method), 134

number (github3.issues.milestone.Milestone attribute), 84

# Ο

object (github3.git.Reference attribute), 48

object (github3.git.Tag attribute), 50

octocat() (github3.github.GitHub method), 64

octocat() (in module github3), 22

open\_issues\_count (github3.issues.milestone.Milestone attribute), 84

open\_issues\_count (github3.repos.repo.Repository attribute), 116

org (github3.events.Event attribute), 31

Organization (class in github3.orgs), 94

organization (github3.orgs.Team attribute), 101

organization() (github3.github.GitHub method), 64

organization() (in module github3), 22

organization\_events() (github3.users.User method), 161

organization\_issues() (github3.github.GitHub method), 64

organization\_memberships() (github3.github.GitHub method), 65

organizations() (github3.github.GitHub method), 65

organizations() (github3.users.User method), 161

onorganizations\_with() (github3.github.GitHub method), 65

organizations\_with() (in module github3), 21

original (github3.structs.GitHubIterator attribute), 157

original\_assets (github3.repos.release.Release attribute), 144

original\_commit\_id (github3.pulls.ReviewComment attribute), 110

original\_content (github3.gists.file.GistFile attribute), 38 original\_forks (github3.gists.gist.Gist attribute), 33

original\_license (github3.repos.repo.Repository attribute), 116

original\_position (github3.pulls.ReviewComment attribute), 110

### Ρ

pages() (github3.repos.repo.Repository method), 134 pages\_builds() (github3.repos.repo.Repository method), 134

PagesBuild (class in github3.repos.pages), 149

PagesInfo (class in github3.repos.pages), 149

- params (github3.structs.GitHubIterator attribute), 157
- parent (github3.repos.repo.Repository attribute), 117
- parents (github3.git.Commit attribute), 44
- patch (github3.pulls.PullFile attribute), 113
- patch() (github3.pulls.PullRequest method), 108
- patch() (github3.repos.comparison.Comparison method), 153
- patch\_url (github3.repos.comparison.Comparison attribute), 152
- path (github3.git.Hash attribute), 47
- path (github3.repos.contents.Contents attribute), 141
- path (github3.search.CodeSearchResult attribute), 154
- payload (github3.events.Event attribute), 31
- payload (github3.repos.deployment.Deployment attribute), 143
- permalink\_url (github3.repos.comparison.Comparison attribute), 152
- ping() (github3.repos.hook.Hook method), 148
- Plan (class in github3.users), 165
- prerelease (github3.repos.release.Release attribute), 145
- private\_repos\_count (github3.users.Plan attribute), 165 project() (github3.github.GitHub method), 65
- project() (github3.orgs.Organization method), 99
- project() (github3.repos.repo.Repository method), 134
- project card() (github3.github.GitHub method), 65
- project\_column() (github3.github.GitHub method), 65
- projects() (github3.orgs.Organization method), 99
- projects() (github3.repos.repo.Repository method), 135
- promote() (github3.users.User method), 161
- protected (github3.repos.branch.Branch attribute), 141
- protection (github3.repos.branch.Branch attribute), 141
- protection\_url (github3.repos.branch.Branch attribute), 141
- public (github3.events.Event attribute), 31
- public\_events() (github3.orgs.Organization method), 99
- public\_gists() (github3.github.GitHub method), 65
- public\_gists() (in module github3), 20
- public\_gists\_count (github3.users.User attribute), 159
- public\_members() (github3.orgs.Organization method), 100
- public\_repos\_count (github3.orgs.Organization attribute), 95
- publicize\_member() (github3.orgs.Organization method), 100
- published\_at (github3.repos.release.Release attribute), 145
- pubsubhubbub() (github3.github.GitHub method), 66
- pull\_request() (github3.github.GitHub method), 66
- pull\_request() (github3.issues.issue.Issue method), 79
- pull\_request() (github3.repos.repo.Repository method), 135
- pull\_request() (in module github3), 23

- pull\_request\_url (github3.pulls.ReviewComment attribute), 110
- pull\_requests() (github3.repos.repo.Repository method), 135
- PullDestination (class in github3.pulls), 112
- PullFile (class in github3.pulls), 113
- PullRequest (class in github3.pulls), 105
- pushed\_at (github3.repos.repo.Repository attribute), 117
- pusher (github3.repos.pages.PagesBuild attribute), 150

### R

- rate\_limit() (github3.github.GitHub method), 66 rate\_limit() (in module github3), 23 ratelimit\_remaining (github3.auths.Authorization attribute), 29 ratelimit\_remaining (github3.events.Event attribute), 32 ratelimit remaining (github3.gists.comment.GistComment attribute), 37 ratelimit remaining (github3.gists.file.GistFile attribute), 38 ratelimit remaining (github3.gists.gist.Gist attribute), 35 ratelimit remaining (github3.gists.history.GistHistory attribute), 40 ratelimit remaining (github3.git.Blob attribute), 42 ratelimit\_remaining (github3.git.Commit attribute), 45 ratelimit remaining (github3.git.CommitTree attribute), 53 ratelimit remaining (github3.git.GitObject attribute), 46 ratelimit\_remaining (github3.git.Hash attribute), 47 ratelimit\_remaining (github3.git.Reference attribute), 49 ratelimit\_remaining (github3.git.ShortCommit attribute), 43 ratelimit\_remaining (github3.git.Tag attribute), 50 ratelimit\_remaining (github3.git.Tree attribute), 52 ratelimit\_remaining (github3.github.GitHub attribute), 66 ratelimit remaining (github3.issues.comment.IssueComment attribute), 81 ratelimit remaining (github3.issues.event.IssueEvent attribute). 83 ratelimit remaining (github3.issues.issue.Issue attribute), 79 ratelimit\_remaining (github3.issues.label.Label attribute), 87 ratelimit\_remaining (github3.issues.milestone.Milestone attribute), 85 ratelimit\_remaining (github3.models.GitHubCore attribute), 88 ratelimit\_remaining (github3.notifications.RepositorySubscription attribute), 92
- ratelimit\_remaining (github3.notifications.Thread attribute), 90
- ratelimit\_remaining (github3.notifications.ThreadSubscription attribute), 94

- ratelimit remaining (github3.orgs.Organization tribute). 100
- ratelimit remaining (github3.orgs.Team attribute), 104
- ratelimit remaining (github3.pulls.PullDestination attribute), 113
- ratelimit remaining (github3.pulls.PullFile attribute), 114
- ratelimit remaining (github3.pulls.PullRequest attribute). 108
- ratelimit remaining (github3.pulls.ReviewComment attribute), 111
- ratelimit\_remaining (github3.repos.comment.RepoComment attribute), 151
- ratelimit\_remaining (github3.repos.repo.Repository attribute), 135
- ratelimit\_remaining (github3.repos.repo.StarredRepository refresh() (github3.orgs.Organization method), 100 attribute), 140
- ratelimit\_remaining (github3.structs.GitHubIterator attribute), 157
- ratelimit remaining (github3.structs.SearchIterator attribute), 157
- ratelimit\_remaining (github3.users.Key attribute), 164
- ratelimit remaining (github3.users.Plan attribute), 166
- ratelimit\_remaining (github3.users.User attribute), 161
- raw url (github3.pulls.PullFile attribute). 114
- readme() (github3.repos.repo.Repository method), 135
- reason (github3.notifications.RepositorySubscription attribute), 91
- reason (github3.notifications.Thread attribute), 89
- (github3.notifications.ThreadSubscription reason attribute), 93
- received\_events() (github3.users.User method), 161
- recurse() (github3.git.Tree method), 52
- ref (github3.git.Reference attribute), 48
- ref (github3.pulls.PullDestination attribute), 112
- (github3.repos.deployment.Deployment attribute), ref 143
- ref() (github3.repos.repo.Repository method), 136
- Reference (class in github3.git), 48
- refresh() (github3.auths.Authorization method), 29
- refresh() (github3.events.Event method), 32
- refresh() (github3.gists.comment.GistComment method), 37
- refresh() (github3.gists.file.GistFile method), 38
- refresh() (github3.gists.gist.Gist method), 35
- refresh() (github3.gists.history.GistHistory method), 40
- refresh() (github3.git.Blob method), 42
- refresh() (github3.git.Commit method), 45
- refresh() (github3.git.CommitTree method), 53
- refresh() (github3.git.GitObject method), 46
- refresh() (github3.git.Hash method), 48
- refresh() (github3.git.Reference method), 49
- refresh() (github3.git.ShortCommit method), 43
- refresh() (github3.git.Tag method), 50
- refresh() (github3.git.Tree method), 52

- at- refresh() (github3.github.GitHub method), 67
  - (github3.issues.comment.IssueComment refresh() method). 81
  - refresh() (github3.issues.event.IssueEvent method), 83
  - refresh() (github3.issues.issue.Issue method), 79
  - refresh() (github3.issues.label.Label method), 87
  - refresh() (github3.issues.milestone.Milestone method), 85
  - refresh() (github3.models.GitHubCore method), 88
  - refresh() (github3.notifications.RepositorySubscription method), 92
  - refresh() (github3.notifications.Thread method), 90
  - refresh() (github3.notifications.ThreadSubscription method), 94

  - refresh() (github3.orgs.Team method), 104
  - refresh() (github3.pulls.PullDestination method), 113
  - refresh() (github3.pulls.PullFile method), 114
  - refresh() (github3.pulls.PullRequest method), 108
  - refresh() (github3.pulls.ReviewComment method), 111
  - refresh() (github3.repos.comment.RepoComment method), 151
  - refresh() (github3.repos.repo.Repository method), 136
  - refresh() (github3.repos.repo.StarredRepository method). 140
  - refresh() (github3.users.Key method), 164
  - refresh() (github3.users.Plan method), 166
  - refresh() (github3.users.User method), 162
  - refs() (github3.repos.repo.Repository method), 136
  - Release (class in github3.repos.release), 144
  - release() (github3.repos.repo.Repository method), 136
  - release\_from\_tag() (github3.repos.repo.Repository method), 136
  - releases() (github3.repos.repo.Repository method), 137
  - remove all labels() (github3.issues.issue.Issue method), 79
  - remove collaborator() (github3.repos.repo.Repository method). 137
  - remove label() (github3.issues.issue.Issue method), 79
  - remove\_member() (github3.orgs.Organization method), 100
  - remove member() (github3.orgs.Team method), 104
  - remove repository() (github3.orgs.Organization method), 100
  - remove\_repository() (github3.orgs.Team method), 104 remove\_scopes() (github3.auths.Authorization method), 30
  - rename() (github3.users.User method), 162
  - reopen() (github3.issues.issue.Issue method), 79
  - reopen() (github3.pulls.PullRequest method), 109
  - replace\_labels() (github3.issues.issue.Issue method), 80
  - replace\_scopes() (github3.auths.Authorization method), 30
  - reply() (github3.pulls.ReviewComment method), 112

repo (github3.events.Event attribute), 31 search issues() (github3.github.GitHub method), 69 repo (github3.pulls.PullDestination attribute), 112 search issues() (in module github3), 24 RepoComment (class in github3.repos.comment), 150 search repositories() (github3.github.GitHub method), 70 RepoCommit (class in github3.repos.commit), 152 search\_repositories() (in module github3), 25 repos count (github3.orgs.Team attribute), 101 search users() (github3.github.GitHub method), 71 repositories() (github3.github.GitHub method), 67 search users() (in module github3), 26 repositories() (github3.orgs.Organization method), 101 SearchIterator (class in github3.structs), 157 repositories() (github3.orgs.Team method), 104 (github3.notifications.RepositorySubscription set() repositories by() (github3.github.GitHub method), 67 method), 92 repositories\_by() (in module github3), 21 set() (github3.notifications.ThreadSubscription method), Repository (class in github3.repos.repo), 116 94 repository (github3.notifications.Thread attribute), 89 set\_client\_id() (github3.github.GitHub method), 71 repository (github3.pulls.PullDestination attribute), 112 set subscription() (github3.notifications.Thread method), (github3.repos.repo.StarredRepository repository at-90 set\_user\_agent() (github3.github.GitHub method), 72 tribute), 139 repository (github3.repos.status.CombinedStatus atsha (github3.git.Blob attribute), 41 tribute), 153 sha (github3.git.Commit attribute), 44 repository (github3.search.CodeSearchResult attribute), sha (github3.git.CommitTree attribute), 52 154 sha (github3.git.GitObject attribute), 45 repository() (github3.github.GitHub method), 68 sha (github3.git.Hash attribute), 47 repository() (in module github3), 23 sha (github3.git.Tag attribute), 50 repository url (github3.notifications.RepositorySubscriptionsha (github3.git.Tree attribute), 51 attribute), 91 sha (github3.pulls.PullDestination attribute), 112 repository\_url (github3.repos.issue\_import.ImportedIssue sha (github3.pulls.PullFile attribute), 114 attribute), 149 sha (github3.repos.contents.Contents attribute), 142 repository with id() (github3.github.GitHub method), 68 sha (github3.repos.deployment.Deployment attribute), RepositorySearchResult (class in github3.search), 155 143 RepositorySubscription (class in github3.notifications), sha (github3.repos.status.CombinedStatus attribute), 153 sha (github3.search.CodeSearchResult attribute), 154 91 RepoTag (class in github3.repos.tag), 150 ShortCommit (class in github3.git), 42 requires\_auth() (in module github3.decorators), 166 size (github3.git.Blob attribute), 41 review\_comments() (github3.pulls.PullRequest method), size (github3.git.Hash attribute), 47 size (github3.repos.contents.Contents attribute), 142 109 review\_comments\_count (github3.pulls.PullRequest atsize (github3.repos.release.Asset attribute), 147 tribute), 106 size (github3.repos.repo.Repository attribute), 117 ReviewComment (class in github3.pulls), 109 source (github3.repos.repo.Repository attribute), 117 reviews() (github3.pulls.PullRequest method), 109 space (github3.users.Plan attribute), 165 revoke authorization() (github3.github.GitHub method), ssh\_url (github3.repos.repo.Repository attribute), 117 star() (github3.gists.gist.Gist method), 35 68 revoke\_authorizations() (github3.github.GitHub method), star() (github3.github.GitHub method), 72 stargazers() (github3.repos.repo.Repository method), 137 68 (github3.repos.repo.Repository revoke impersonation() (github3.users.User method), stargazers count attribute). 117 162 revoke\_membership() (github3.orgs.Team method), 105 starred() (github3.github.GitHub method), 72 starred at (github3.repos.repo.StarredRepository at-S tribute), 139 starred by() (github3.github.GitHub method), 72 scopes (github3.auths.Authorization attribute), 28 starred\_by() (in module github3), 22 score (github3.search.CodeSearchResult attribute), 154 starred\_repositories() (github3.users.User method), 162 score (github3.search.IssueSearchResult attribute), 155 StarredRepository (class in github3.repos.repo), 139 score (github3.search.RepositorySearchResult attribute), state (github3.issues.milestone.Milestone attribute), 84 155

score (github3.search.UserSearchResult attribute), 155 search\_code() (github3.github.GitHub method), 68 search\_code() (in module github3), 23

state (github3.repos.release.Asset attribute), 147

tribute), 144

state (github3.repos.deployment.DeploymentStatus at-

- state (github3.repos.status.CombinedStatus attribute), 153
- Status (class in github3.repos.status), 153
- status (github3.pulls.PullFile attribute), 114
- status (github3.repos.comparison.Comparison attribute), 152
- status (github3.repos.issue\_import.ImportedIssue attribute), 149
- status (github3.repos.pages.PagesBuild attribute), 150
- status (github3.repos.pages.PagesInfo attribute), 149
- status() (github3.github.GitHubStatus method), 76
- statuses (github3.repos.status.CombinedStatus attribute), 153
- statuses() (github3.repos.deployment.Deployment method), 143
- statuses() (github3.repos.repo.Repository method), 137
- statuses\_url (github3.repos.deployment.Deployment attribute), 143
- subject (github3.notifications.Thread attribute), 89
- submodule\_git\_url (github3.repos.contents.Contents attribute), 142
- subscribe() (github3.repos.repo.Repository method), 138
- subscribed (github3.notifications.RepositorySubscription attribute), 91
- subscribed (github3.notifications.ThreadSubscription attribute), 93
- subscribers() (github3.repos.repo.Repository method), 138
- subscribers\_count (github3.repos.repo.Repository attribute), 117
- subscription() (github3.notifications.Thread method), 91
- subscription() (github3.repos.repo.Repository method), 138
- subscriptions() (github3.github.GitHub method), 72
- subscriptions() (github3.users.User method), 163
- subscriptions\_for() (github3.github.GitHub method), 73
- subscriptions\_for() (in module github3), 22
- suspend() (github3.users.User method), 163
- svn\_url (github3.repos.repo.Repository attribute), 117

### Т

- Tag (class in github3.git), 49
- tag (github3.git.Tag attribute), 50
- tag() (github3.repos.repo.Repository method), 138
- tag\_name (github3.repos.release.Release attribute), 145 tagger (github3.git.Tag attribute), 50
- tags() (github3.git. Tag attribute), 50 tags() (github3.repos.repo.Repository method), 138
- tarball\_url (github3.repos.release.Release attribute), 145
- tarball\_url (github3.repos.tag.RepoTag attribute), 145
- target (github3.repos.contents.Contents attribute), 142
- target\_commitish (github3.repos.release.Release attribute), 145
- target\_url (github3.repos.deployment.DeploymentStatus attribute), 144

- Team (class in github3.orgs), 101
- team() (github3.orgs.Organization method), 101
- teams() (github3.orgs.Organization method), 101
- teams() (github3.repos.repo.Repository method), 138
- test() (github3.repos.hook.Hook method), 149
- text\_matches (github3.search.CodeSearchResult attribute), 154
- text\_matches (github3.search.IssueSearchResult attribute), 155
- text\_matches (github3.search.RepositorySearchResult attribute), 155
- text\_matches (github3.search.UserSearchResult attribute), 155
- Thread (class in github3.notifications), 89
- thread\_url (github3.notifications.ThreadSubscription attribute), 93
- ThreadSubscription (class in github3.notifications), 92
- title (github3.issues.milestone.Milestone attribute), 84
- to\_tree() (github3.git.CommitTree method), 53
- token (github3.auths.Authorization attribute), 28
- token\_last\_eight (github3.auths.Authorization attribute), 28
- total (github3.repos.stats.ContributorStats attribute), 153
- total\_commits (github3.repos.comparison.Comparison attribute), 152
- total\_count (github3.repos.status.CombinedStatus attribute), 153
- total\_count (github3.structs.SearchIterator attribute), 158 totoal (github3.gists.history.GistHistory attribute), 39
- Tree (class in github3.git), 51
- tree (github3.git.ShortCommit attribute), 43
- tree (github3.git.Tree attribute), 51
- tree() (github3.repos.repo.Repository method), 139
- truncated (github3.gists.file.GistFile attribute), 38
- truncated (github3.gists.gist.Gist attribute), 33
- type (github3.events.Event attribute), 31
- type (github3.git.GitObject attribute), 45
- type (github3.git.Hash attribute), 47
- type (github3.repos.contents.Contents attribute), 142

# U

- unfollow() (github3.github.GitHub method), 73 unlock() (github3.issues.issue.Issue method), 80 unread (github3.notifications.Thread attribute), 89 unstar() (github3.gists.gist.Gist method), 36 unstar() (github3.github.GitHub method), 73 unsuspend() (github3.users.User method), 163 update() (github3.git.Reference method), 49 update() (github3.issues.label.Label method), 87 update() (github3.issues.milestone.Milestone method), 85
- update() (github3.pulls.PullRequest method), 109
- update() (github3.repos.comment.RepoComment method), 152
- update() (github3.repos.contents.Contents method), 142

update() (github3.users.Key method), 164

- update\_me() (github3.github.GitHub method), 73
- updated\_at (github3.auths.Authorization attribute), 28
- updated\_at (github3.gists.comment.GistComment attribute), 36
- updated\_at (github3.issues.comment.IssueComment attribute), 80
- updated\_at (github3.issues.milestone.Milestone attribute), 84
- updated\_at (github3.notifications.Thread attribute), 89
- updated\_at (github3.orgs.Team attribute), 102
- updated\_at (github3.pulls.ReviewComment attribute), 110
- updated\_at (github3.repos.deployment.Deployment attribute), 143
- updated\_at (github3.repos.hook.Hook attribute), 148
- updated\_at (github3.repos.issue\_import.ImportedIssue attribute), 149
- updated\_at (github3.repos.pages.PagesBuild attribute), 150
- updated\_at (github3.repos.release.Asset attribute), 147
- updated\_at (github3.repos.repo.Repository attribute), 117
- updated\_at (github3.users.User attribute), 159
- upload\_asset() (github3.repos.release.Release method), 146
- upload\_urlt (github3.repos.release.Release attribute), 145
- url (github3.gists.history.GistHistory attribute), 39
- url (github3.structs.GitHubIterator attribute), 157
- User (class in github3.users), 158
- user (github3.gists.comment.GistComment attribute), 36
- user (github3.gists.history.GistHistory attribute), 39
- user (github3.issues.comment.IssueComment attribute), 80
- user (github3.pulls.PullDestination attribute), 112
- user (github3.pulls.ReviewComment attribute), 110
- user (github3.search.UserSearchResult attribute), 155
- user() (github3.github.GitHub method), 74
- user() (in module github3), 27
- user\_issues() (github3.github.GitHub method), 74 user\_teams() (github3.github.GitHub method), 74 user\_with\_id() (github3.github.GitHub method), 74
- UserSearchResult (class in github3.search), 155

### V

verification (github3.git.Commit attribute), 44 version (github3.gists.history.GistHistory attribute), 39

### W

- watchers\_count (github3.repos.repo.Repository attribute), 117
- weekly\_commit\_count() (github3.repos.repo.Repository method), 139
- weeks (github3.repos.stats.ContributorStats attribute), 154

# Ζ

- zen() (github3.github.GitHub method), 74
- zen() (in module github3), 27
- zipball\_url (github3.repos.release.Release attribute), 145 zipball\_url (github3.repos.tag.RepoTag attribute), 150