

GitHub for Astronomers

First Time Users

Why Version Control?

Have you ever:

- Edited a file named `sourcefile-v12-copy-mod-old-old.py`.
- Communicated with your team via email about updates.
- Made updates directly on your production server.
- Accidentally overwrote some files, which can never be retrieved again.

With Version Control:

- Filenames and directory structures are consistent for all team members.
- Make changes with confidence, and revert when needed.
- Rely on source control as the communication medium.
- Understand who made a change and when it happened.

Introduction

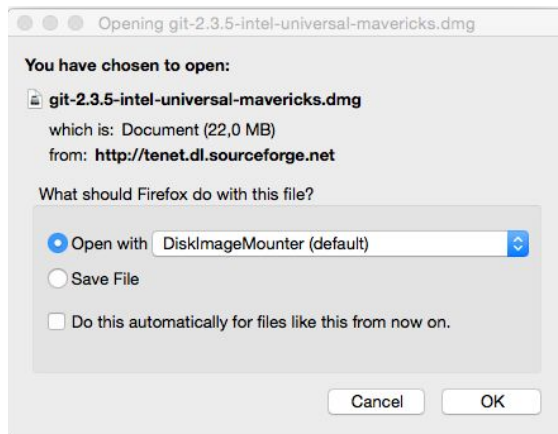
This tutorial covers the once-off setup steps to get going with Git and GitHub.

- Setting up Git on your local system
- Creating and verifying a GitHub account
- Setting up SSH keys to use with Git on your local system
- Joining with your organization for access to shared repositories
- Finding Help
- Useful link to remembering your GitHub login details

Setting Up Locally

You will need the following on your local system

- a browser with an internet connection
- a valid email account
- a terminal app
 - For Ubuntu: Use `Terminal`
 - For Mac:
 - `Applications/Utilities/Terminal.app` OR
 - or install the iTerm app: <http://iterm2.com/>
- a current git installation
 - <http://git-scm.com/downloads>
 - For Ubuntu: `sudo aptitude install git`
<http://git-scm.com/download/linux>
 - For Mac: Git should be pre-installed, else go to <http://git-scm.com/download/mac>



Setting Up Locally (cont)

Setting up Git on your system so you can commit easily

Setting up the `git config` via your terminal only needs to be done once
(We will do the SSH key generation a little later)

- <https://help.github.com/articles/set-up-git/>

Setting up Git

- 1 Download and install the latest version of Git.
- 2 On your computer, open the **Terminal** application.
- 3 Tell Git your *name* so your commits will be properly labeled. Type everything after the `$` here:

```
$ git config --global user.name "YOUR NAME"
```
- 4 Tell Git the *email address* that will be associated with your Git commits. The email you specify should be the same one found in your [email settings](#). To keep your email address hidden, see "[Keeping your email address private](#)".

```
$ git config --global user.email "YOUR EMAIL ADDRESS"
```

Proceed to GitHub to create an account

- <https://github.com/>

Create a GitHub Account

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Sign upSign in

Build software better, together.

Powerful collaboration, code review, and code management for open source and private projects. Need private repositories?
Upgraded plans start at \$7/mo.

Use at least one lowercase letter, one numeral, and seven characters.

Sign up for GitHub

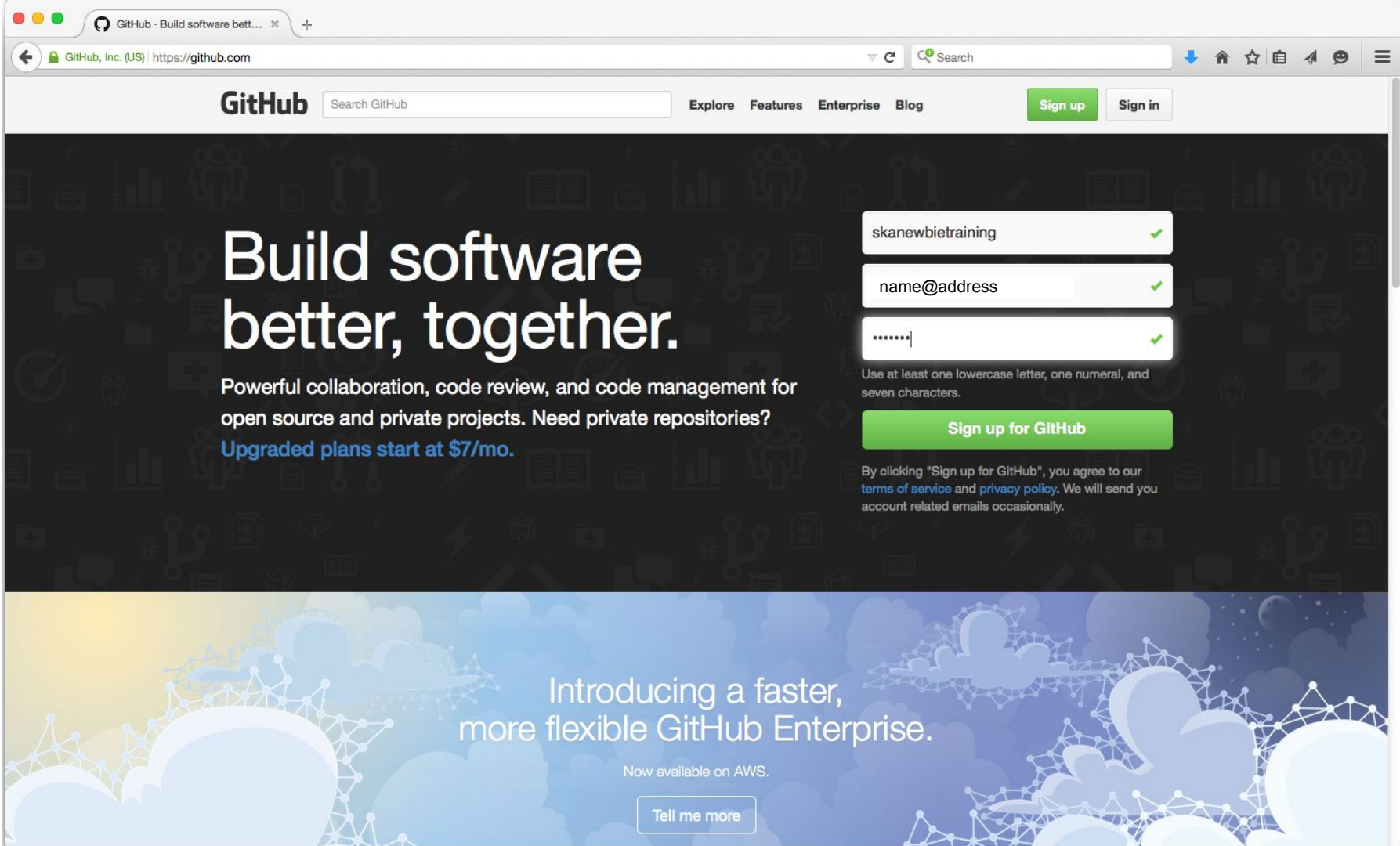
By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We will send you account related emails occasionally.

Introducing a faster, more flexible GitHub Enterprise.

Now available on AWS.

Tell me more

7



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Sign upSign in

Build software better, together.

Powerful collaboration, code review, and code management for open source and private projects. Need private repositories? Upgraded plans start at \$7/mo.

skanewbietraining

name@address

.....

Use at least one lowercase letter, one numeral, and seven characters.

Sign up for GitHub

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Tell me more

Welcome to GitHub

You've taken your first step into a larger world, @skanewbietraining.

 **Completed**
Set up a personal account

 **Step 2:**
Choose your plan

 **Step 3:**
Go to your dashboard

Choose your personal plan

Plan	Cost <small>(view in ZAR)</small>	Private repos	
Large	\$50/month	50	<button>Choose</button>
Medium	\$22/month	20	<button>Choose</button>
Small	\$12/month	10	<button>Choose</button>
Micro	\$7/month	5	<button>Choose</button>
Free	\$0/month	0	Chosen

Each plan includes:

Unlimited collaborators

Unlimited public repositories

- ✓ Free setup
- ✓ SSL Protection
- ✓ Email support
- ✓ Wikis, Issues, Pages, & more

Charges to your account will be made in **US Dollars**. Converted prices are provided as a convenience and are only an *estimate* based on *current* exchange rates. Local prices will change as the exchange rate fluctuates.

Don't worry, you can cancel or upgrade at any time.

- ☐ **Help me set up an organization next**
Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees.
[Learn more about organizations.](#)

 **Click Here**  **Finish sign up**

Verifying Your Account

- Personal settings
- Profile
- Account settings
- Emails**
- Notification center
- Billing
- SSH keys
- Security
- Applications
- Personal access tokens
- Repositories
- Organizations

Email

Your **primary GitHub email address** will be used for account-related notifications (e.g. account changes and billing receipts) as well as any web-based GitHub operations (e.g. edits and merges).

You have not verified any email addresses. We recommend you verify at least one email for password recovery.

name@address	Primary	Public	Unverified	Click Here → Send verification email	
--------------	---------	--------	------------	--	--

Add email address

Add

We sent a verification email to . Please follow the instructions in it.

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Primary Public Unverified Send verification email

Add email address

Add

[GitHub] Please verify your email [redacted]



Inbox x



GitHub <noreply@github.com>

to me ▾

11:52 (4 minutes ago) ☆



Hey, we want to verify that you are indeed "skanewbietraining". Verifying this address will let you receive notifications and password resets from GitHub. If you wish to continue, please follow the link below:

https://github.com/users/skanewbietraining/emails/14342210/confirm_verification/2961a1358670e9081b362ce6b178f2400b12f362

If you're not skanewbietraining or didn't request verification, you can ignore this email.

Click on the link to be redirected to GitHub to complete the email confirmation

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Confirm Email Verification

Please confirm verification of





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skanewbie123training



Your email was verified.



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Email

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Primary

Public



Add email address

Add

☐ **Keep my email address private**

We will use `skanewbie123training@users.noreply.github.com` when performing web-based Git operations and sending email on your behalf. If you want command line Git operations to use your private email you must [set your email in Git](#).



Basic Settings

skanewbietraining

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skanewbietraining

Joined on 28 Apr 2015

0

Followers

0

Starred

0

Following

Pro tip: updating your profile with your name, location, and a profile picture helps other GitHub users get to know you.

Edit profile

ContributionsRepositoriesPublic activity

Contributions

MayJunJulAugSepOctNovDecJanFebMarApr

M

W

F

Summary of Pull Requests, issues opened, and commits. [Learn more.](#)


LessMore

This is your **contribution graph**. When you make a commit to a repository, you'll get a ■ for that day. Make more contributions and you'll get a darker green square. Over time, your chart might start looking [something like this](#).

We have a quick guide that will show you how to create your first repository. You'll also make a commit and **earn your first green square!**

[Read the Hello World guide](#)

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Settings



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0Followers

0Starred

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Public activity

Contributions

MayJunJulAugSepOctNovDecJanFebMarApr

M

W

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Read the Hello World guide



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Public profile

Profile picture



Upload new picture

You can also drag and drop a picture from your computer.

Name

Public email

Don't show my email address

You can add or remove email addresses in your [personal email settings](#).

URL

Company

Location

Update profile

GitHub Developer Program

Building an application, service, or tool that integrates with GitHub? [Join the GitHub Developer Program](#), or read more about it at our [Developer site](#).

Account settings

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Change password

Old password

New password

Confirm new password

Update passwordI forgot my password

? Looking for two-factor authentication? You can find it in [Security](#).

Change username

Changing your username can have unintended side effects.

Change username

Delete account

Once you delete your account, there is no going back. Please be certain.

Delete your account

Adding SSH Keys

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Need help? Check out our guide to [generating SSH keys](#) or troubleshoot [common SSH Problems](#)

SSH keys

Add SSH key

There are no SSH keys with access to your account.



```

[ruby@McRubyV2-12:25:57]-#1 ~
> cd .ssh/

[ruby@McRubyV2-12:26:01]-#1 ~/.ssh
> ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/Users/ruby/.ssh/id_rsa): id_rubytraining
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in id_rubytraining.
Your public key has been saved in id_rubytraining.pub.
The key fingerprint is:
04:f6:cf:8e:3a:a0:b:79:f2:a8:80:11:d1:6c:d5:a1
The key's randomart image is:
+--[ RSA 2048 ]-----+
|.o ...+. |
|. + o.o |
|.. E o |
|. . .o |
|. . S o |
|.o . o |
|* .. . . |
|* . .. |
|+ o. .. |
+-----+

[ruby@McRubyV2-12:26:36]-#1 ~/.ssh
> ls -al ~/.ssh/
total 152
drwx----- 10 ruby staff 340 Apr 28 12:26 ./
drwx-----+ 145 ruby staff 4930 Apr 28 12:25 ../
-rw-r--r-- 1 ruby staff 100 Dec 19 2013 config
-rw----- 1 ruby staff 744 Mar 5 2008 id_dsa
-rw-r--r-- 1 ruby staff 611 Mar 5 2008 id_dsa.pub
-rw----- 1 ruby staff 1675 Aug 26 2010 id_rsa
-rw-r--r-- 1 ruby staff 401 Aug 26 2010 id_rsa.pub
-rw----- 1 ruby staff 1766 Apr 28 12:26 id_rubytraining
-rw-r--r-- 1 ruby staff 396 Apr 28 12:26 id_rubytraining.pub
-rw-r--r-- 1 ruby staff 46696 Apr 16 14:08 known_hosts

[ruby@McRubyV2-12:27:20]-#1 ~/.ssh
> ssh-add ~/.ssh/id_rubytraining
Enter passphrase for /Users/ruby/.ssh/id_rubytraining:
Identity added: /Users/ruby/.ssh/id_rubytraining (/Users/ruby/.ssh/id_rubytraining)

[ruby@McRubyV2-12:29:01]-#1 ~/.ssh
> pbcopy < ~/.ssh/id_rubytraining.pub

[ruby@McRubyV2-12:29:44]-#1 ~/.ssh
>

```

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SSH keys

Click Here

Add SSH key

There are no SSH keys with access to your account.

Add an SSH key

Title

Key

Add key



SSH keys

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SSH keys [Add SSH key](#)

There are no SSH keys with access to your account.

Add an SSH key

Title

SKA personal laptop

Key

[Add key](#)

- Undo
- Cut
- Copy
- Paste**
- Delete
- Select All
- Add Dictionaries...
- Inspect Element

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SSH keys

Add SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

There are no SSH keys with access to your account.

Add an SSH key

Title

SKA personal laptop

Key

ssh-rsa

Add key

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SSH keys

[Add SSH key](#)

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SKA personal laptop

04:f6:cf:8e:3a:a0:0b:79:f2:a8:80:11:d1:6c:d5:a1

Added on 28 Apr 2015 — Never used

[Delete](#)



```
[ruby@McRubyV2-12:33:10]-#1 ~  
> ssh -T git@github.com  
Warning: untrusted X11 forwarding setup failed: xauth key data not generated  
X11 forwarding request failed on channel 0  
Hi skanewbietraining! You've successfully authenticated, but GitHub does not provide shell access.  
  
[ruby@McRubyV2-12:35:11]-#1 ~  
> █
```

Joining your Organization

[GitHub] [redacted] has invited you to join the SKA Africa organization

Inbox x



GitHub <support@github.com>

15:12 (1 hour ago) ☆

to me ▾

Hi skanewbietraining,

[redacted] has invited you to join the SKA Africa organization on GitHub. Head over to <https://github.com/ska-sa> to check out SKA Africa's profile.

To join SKA Africa, follow this link:

[\[redacted\]/invitation?via_email=1](#)

Some helpful tips:

- If you get a 404 page, make sure you're signed in as skanewbietraining.
- You can also accept the invitation by visiting the organization page directly at <https://github.com/ska-sa>

If you were not expecting this invitation, you can ignore this email.

Thanks,
The GitHub Team

SKA Africa

GitHub, Inc. (US) | https://github.com/ska-sa


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ekanewbletraining

You are now a member of SKA Africa!



SKA Africa

South Africa | http://www.ska.ac.za

Filters

Find a repository...

mkat_fpga

MeerKAT signal processing

Updated 4 days ago

01

mlib_devel

Verilog

★ 18 | 28

forked from casper-astro/mlib_devel

Matlab/Simulink/XSG tool-flow for developing DSP systems for CASPER hardware

Updated 4 days ago

corr2

Python

★ 0 | 5

forked from paulprozesky/corr2

Updated 4 days ago

katgui

JavaScript

★ 1 | 0

katgui web operator interface

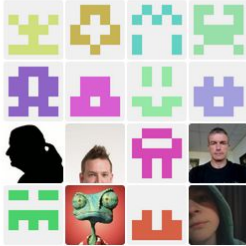
Updated 4 days ago

katcp-python

Python

★ 2 | 2

People37



Teams2

Jump to a team

Owners

16 members · 106 repositories

katcomm - Read only

23 members · 2 repositories



skanewbietraining

Joined on 28 Apr 2015

0 Followers 0 Starred 0 Following

Organizations

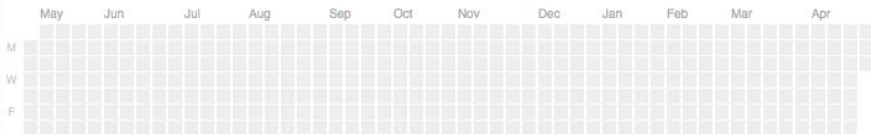


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Contributions



Summary of Pull Requests, issues opened, and commits. [Learn more.](#)

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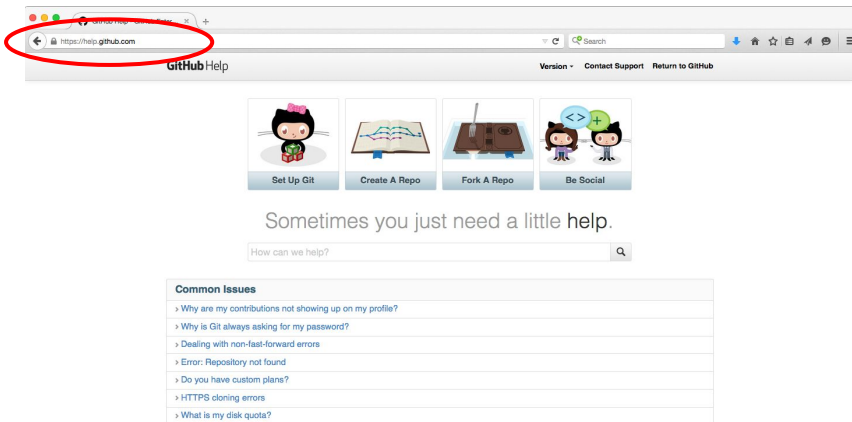
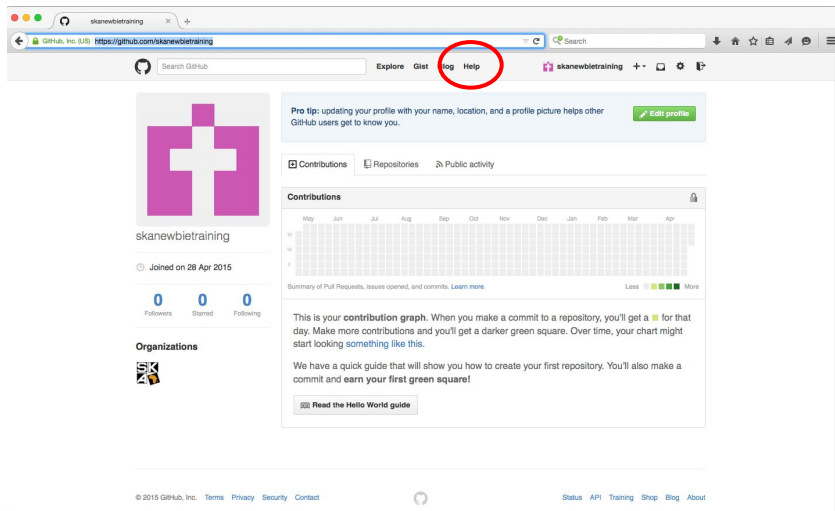
We have a quick guide that will show you how to create your first repository. You'll also make a commit and **earn your first green square!**

[Read the Hello World guide](#)



Appendix

Finding Help



Remembering Your Login

The screenshot shows a web browser window with the URL `https://help.github.com/articles/remembering-your-github-username-or-email/`. The page header includes the GitHub logo, the title "Remembering your GitHub username or email", and navigation links for "Version", "Contact Support", and "Return to GitHub". The main content area has a breadcrumb trail "User Accounts / Remembering your GitHub username or email" and a search bar. The article title "Remembering your GitHub username or email" is prominently displayed, followed by platform-specific links for "MAC" and "WINDOWS". The text explains that if a user is signing in for the first time in a while, they can try these methods to remember their account name or email. A section titled "GitHub for Mac users" contains a numbered list of steps: 1. In the GitHub menu, click **Preferences...**. 2. In the Preferences dialog box, verify the following:

- > To view your GitHub username, click **Accounts**.
- > To view your Git email, click **Advanced**. Note that this email is not guaranteed to be your [primary GitHub email](#).

On the right side, there is a section titled "Article versions" with links for "GitHub.com", "GitHub Enterprise 2.1", "GitHub Enterprise 2.0", and "GitHub Enterprise 11.10.340".

Below the main text, a section titled "Finding your username in your `user.name` configuration" provides instructions on how to find the username in the Git configuration. It states: "During set up, you may have [set your username in Git](#). If so, you can review the value of this configuration setting:"

```
$ git config user.name
# View the setting
YOUR_USERNAME
```