

Logging on to the super computer we will use in class

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July 2021

What is a Super computer

This week we will be using a super computer to work. Super computers are just collections of computers that can work together. A super computer can do more than your laptop because it has more disk space and more memory.



VS.



The super computer we will use is called: _____ (write the name here)

Usernames and Passwords, Locks and keys



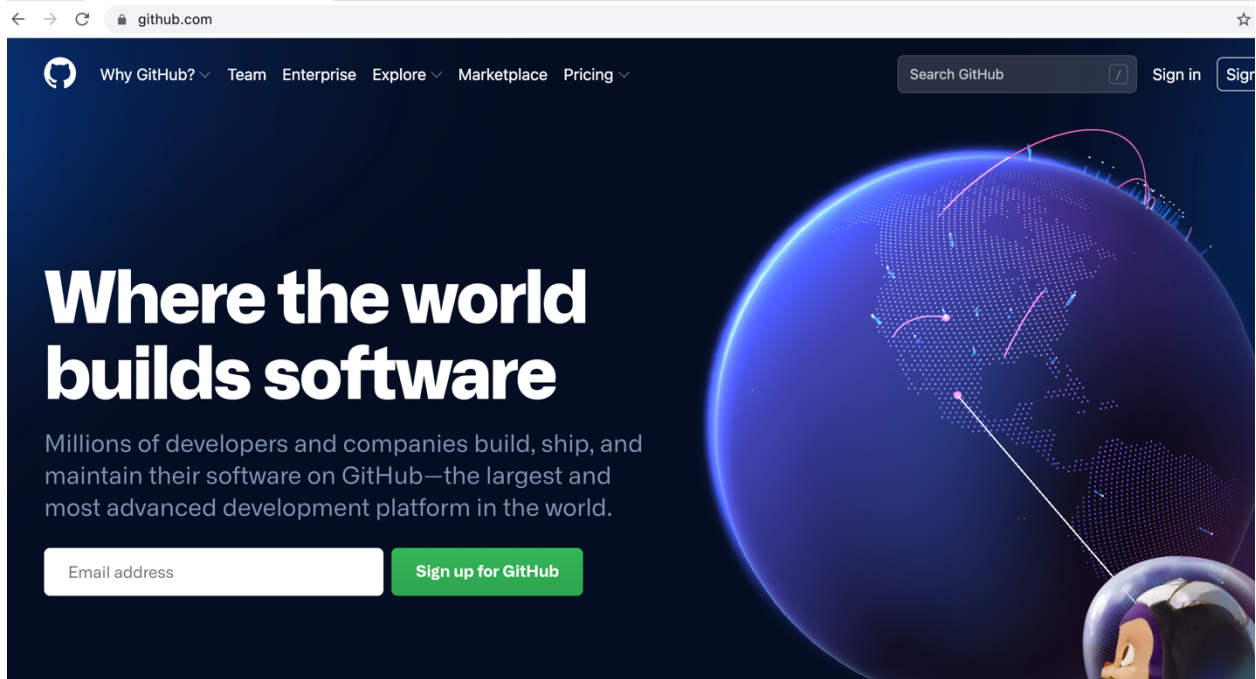
We don't want to deal usernames or passwords. Therefore, we will let github deal with that. Also, passwords are annoying. (People forget them!) So we are going to use a ssh key to log into the super computer.

The key lives on your computer and the "Lock" lives on github. The super computer can then compare the key to the lock and let you in if they match.

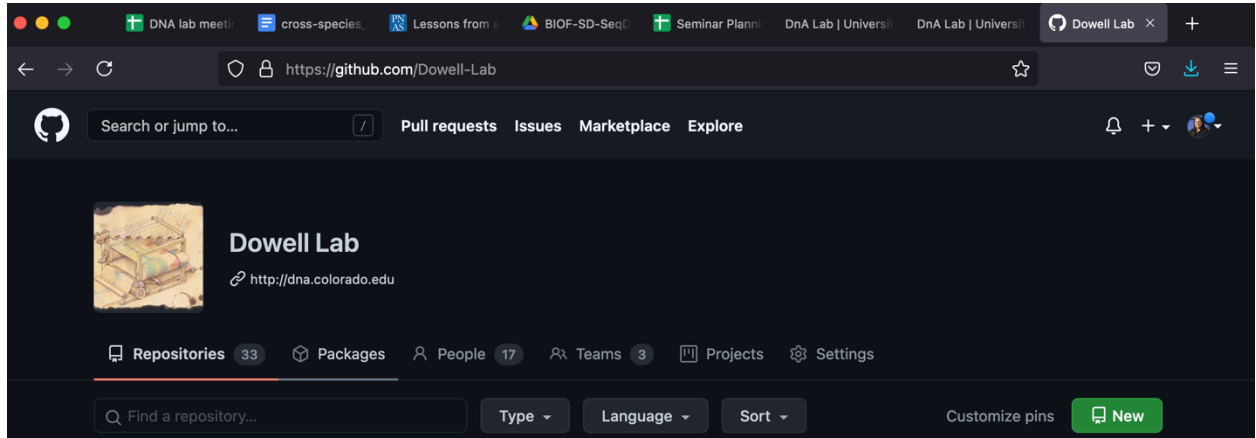
1. Sign up for a free [github](#) account [instructions](#)
2. Put your github username in this [document](#). We tell the super computer your username is allowed to log in.
3. Make a ssh key (You can either follow github's brief instructions or ours (below))
 - a. Github's instructions
 1. [Check for an existing key](#)

2. [Generate a key](#)
 3. [Add the key to github](#)
- b. Our instructions (FOR the SAME thing)
- i. You are going to need
 1. to log into [github](#) in a web browser

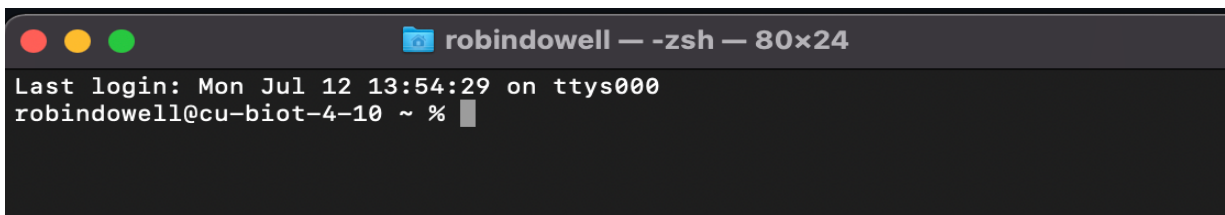
Before



After

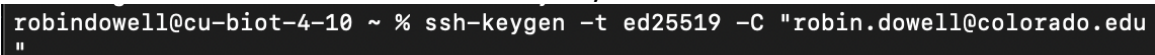


2. to open a terminal:
 - a. For people on a mac: Open the program called terminal
 - b. For people on a PC Open the program called bash ([installation instructions](#))

A terminal window with a dark background and a title bar. The title bar contains three colored circles (red, yellow, green) on the left and the text "robindowell — -zsh — 80x24" on the right. The terminal content shows "Last login: Mon Jul 12 13:54:29 on ttys000" followed by the prompt "robindowell@cu-biot-4-10 ~ %" and a cursor.

It will look something like that. You will have some writing on the left-hand side that will always be present and will end in either a % sign or a \$ sign. Your typing will go to the right of the \$ or % sign. ALL THINGS YOU type must be SPELLED correctly. All things you type must have the right capitalization!

3. Use ssh-keygen to generate the key in the terminal
 - a. obviously don't use Robin's email

A terminal window showing the command "ssh-keygen -t ed25519 -C 'robin.dowell@colorado.edu'" being entered at the prompt "robindowell@cu-biot-4-10 ~ %".

- b. hit enter every time it asks you a question

If it works it will look like this

```
robindowell — -zsh — 80x24
Last login: Mon Jul 12 13:54:29 on ttys000
robindowell@cu-biot-4-10 ~ % ssh-keygen -t ed25519 -C "robin.dowell@colorado.edu"
Generating public/private ed25519 key pair.
Enter file in which to save the key (/Users/robindowell/.ssh/id_ed25519):
[Enter passphrase (empty for no passphrase):
[Enter same passphrase again:
Your identification has been saved in /Users/robindowell/.ssh/id_ed25519.
Your public key has been saved in /Users/robindowell/.ssh/id_ed25519.pub.
The key fingerprint is:
SHA256:g4uYPPf2T63y0ni/gEQTGdWZZP0wrmi0sVTedrBS0aM robin.dowell@colorado.edu
The key's randomart image is:
+--[ED25519 256]--+
|      o+.oo+.o |
|      .. .= *.. |
|      o o +.*. |
|      o .+ oE= o |
|      . So = + . |
| . o . o o=.. |
| = o . .+o . |
| o .. +.oo |
|      ...*+.o. |
+----[SHA256]-----+
robindowell@cu-biot-4-10 ~ %
```

1. Activate the ssg-agent

```
robindowell@cu-biot-4-10 ~ % eval "$(ssh-agent -s)"
```

c. If it works it will look like this

```
robindowell@cu-biot-4-10 ~ % eval "$(ssh-agent -s)"
Agent pid 47056
```

2. Check if you have a ssh config file

```
robindowell@cu-biot-4-10 ~ % open ~/.ssh/config
The file /Users/robindowell/.ssh/config does not exist.
```

d. If you don't have one copy ours

```
robindowell@cu-biot-4-10 ~ % curl http://dna.colorado.edu/ShortRead/config > ~/.ssh/config
```

3. Ssh-add your key and copy it

```
robindowell@cu-biot-4-10 ~ % ssh-add -K ~/.ssh/id_ed25519
Identity added: /Users/robindowell/.ssh/id_ed25519 (robin.dowell@colorado.edu)
robindowell@cu-biot-4-10 ~ % pbcopy < ~/.ssh/id_ed25519.pub
```

4. Put your ssh key on github

→ ↻ https://github.com/dowellde ☆ 🛡️ ⬇️

Search or jump to... / Pull requests Issues Marketplace Explore 🔔 + 👤

Robin Dowell
dowellde

Associate Professor at University of Colorado Boulder.
Bioinformatics, Computational Biology, Machine Learning.

Edit profile

github.com/settings/profile

Overview Repositories 1 Projects Packages

👋 **Introducing user status**
Now you can set a status message about what you're currently doing on GitHub. This status will be publicly visible to other users when they view your profile.
[Got it!](#)

0 contributions in the last year

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
I									

Learn how we count contributions

Contribution activity 2021

Signed in as **dowellde**

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- Sign out


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🔔 + 👤

Signed in as **dowellde**

😊 Set status

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- SSH and GPG keys
- Repositories

Public profile

Name
Robin Dowell

Your name may appear around GitHub where you contribute or are mentioned. You can remove it at any time.


Public email
robin.dowell@colorado.edu [Remove](#)

You can manage verified email addresses in your [email settings](#).

Bio
Associate Professor at University of Colorado Boulder.
Bioinformatics, Computational Biology, Machine Learning.


You can @mention other users and organizations to link to them.


URL
http://dowell.colorado.edu

Profile picture
 [Edit](#)

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← → ↻ https://github.com/settings/keys ☆ 🔒 ⬇️ ☰

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SSH keys

[New SSH key](#)

There are no SSH keys associated with your account.
Check out our guide to [generating SSH keys](#) or [troubleshoot common SSH problems](#).

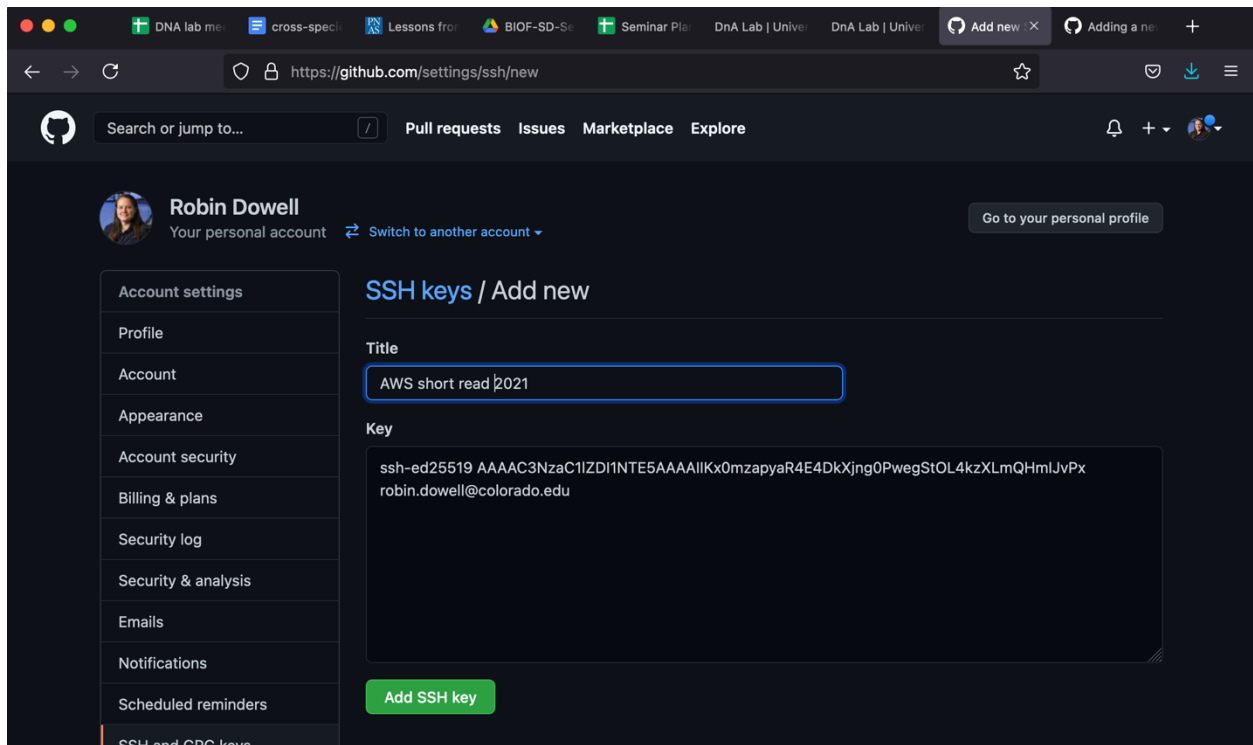
GPG keys

[New GPG key](#)

There are no GPG keys associated with your account.
Learn how to [generate a GPG key](#) and [add it to your account](#).

Vigilant mode Beta

Flag unsigned commits as unverified
This will include any commit attributed to your account but not signed with your GPG or S/MIME key.
Note that this will include your existing unsigned commits.



4. WAIT at least 5 min!!!!
5. Log into the supercomputer (this you will do in class, not before)