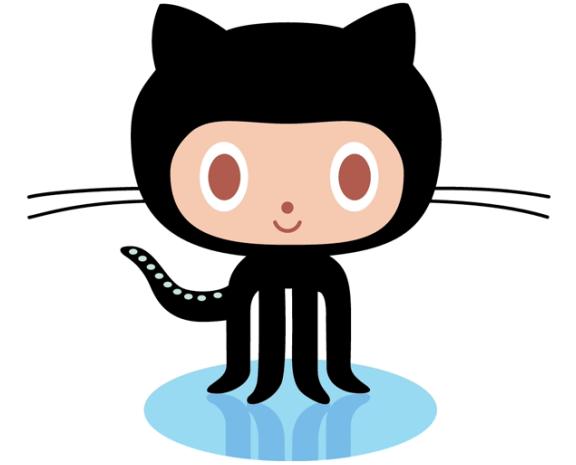


Intro to Github



- **Git** – version control tech
- **GitHub** - social code-hosting platform that's currently used more than any other
 - Others - Bitbucket

The screenshot shows the GitHub Discussions page for the repository 'Github Gang' (@rua-lab/github-gang). The top navigation bar includes links for Pull requests, Issues, Marketplace, Explore, Discussions (which is highlighted), Members (1), Teams (0), Repositories (0), Projects (0), and Settings. The main content area displays a discussion thread titled 'Resources for Github' by user 'megrua'. The post contains a message about resources for GitHub newbies and a list of links:

- <http://brunalab.org/blog/2014/08/07/resources-for-github-n00bs/> (from 2014, may be dated?)
- <https://dynamicecology.wordpress.com/2015/05/28/my-first-experience-with-github-for-sharing-data-and-code/>
- Software Carpentry Lesson: <https://swcarpentry.github.io/git-novice/>
- <https://towardsdatascience.com/getting-started-with-git-and-github-6fcdf2d4ac6> (MAR: my favorite of the bunch, from March 2019)

Step 1: Sign up and installation!

- Sign up for a **Github** account
- Install **Git**
 - <https://git-scm.com/downloads>

- Open terminal and set your username on your computer

*git config --global user.name
“<your_name_here>”*

If you want to set your name for just one repository, leave out the word “global.”

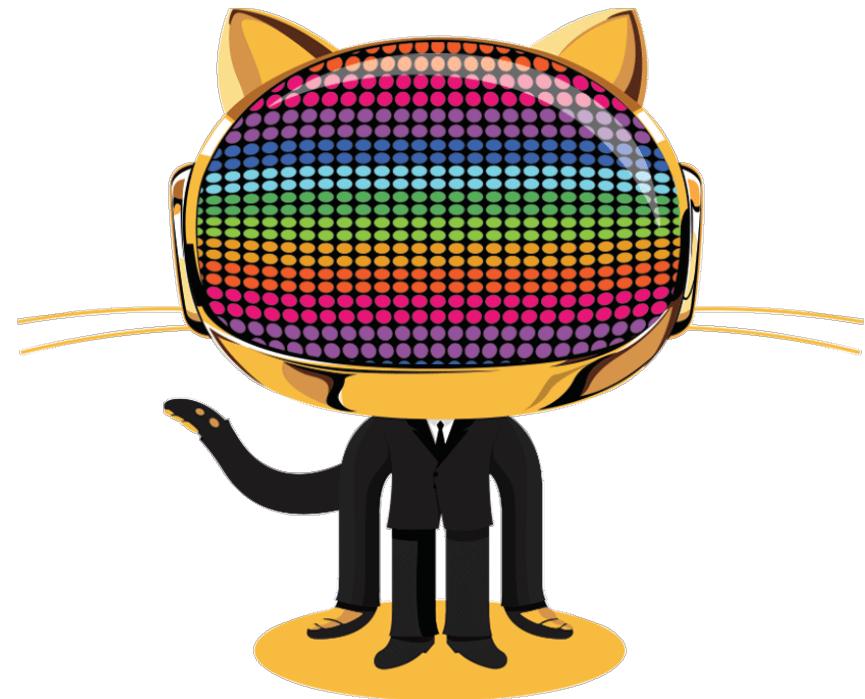
- Tell Git your email, and make sure it's the same email you used when you signed up for GitHub

*git config --global user.email
“<your_email@email.com>”*

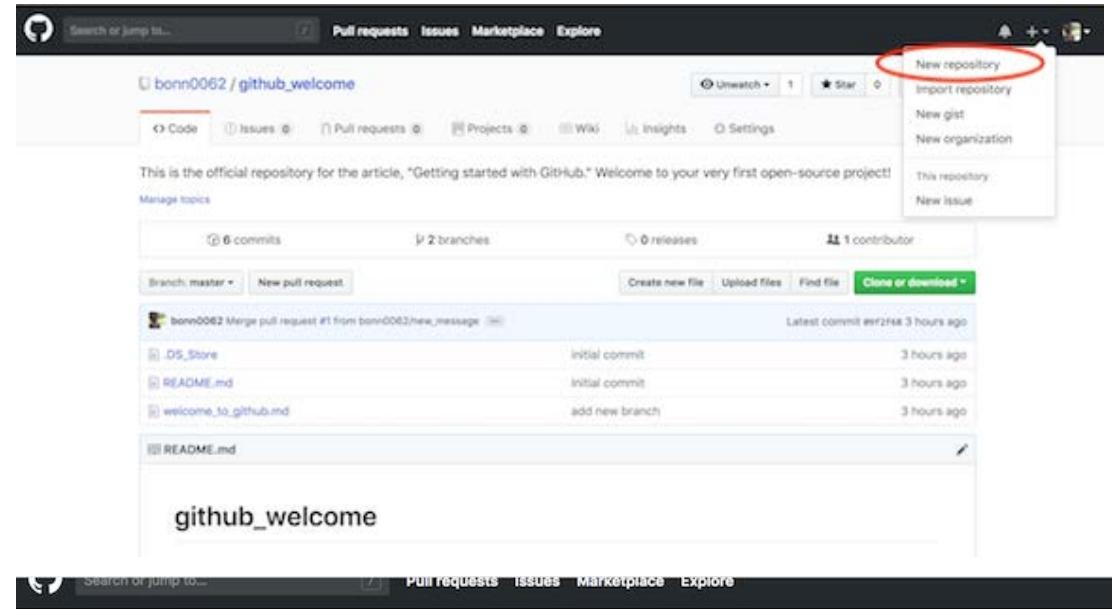


(website interface)

- **Repository** - where you'll organize your project
 - folders, files, images, videos, spreadsheets, Jupyter notebooks, data sets, and anything else your project needs
 - Need to initialize and set it up **BEFORE Git** will manage it
 - Always include a README file with info about the project



- Go to the GitHub website, look in the upper right corner, and click the + sign and then click “New repository.”
- Name the repository, and add a quick description.
- Decide whether you want this to be a public or a private repository
- Click “Initialize this repository with a README” if you want to include the README file.



A screenshot of the 'Create a new repository' form. The 'Repository name' field (containing 'github_welcome') and the 'Description (optional)' field (containing 'This is the official repository for the article, "Getting started with GitHub." Welcome to your very first open') are both circled in red. Red arrows point to the 'Public' and 'Initialize this repository with a README' options. The bottom 'Create repository' button is also circled in red.

Create a new repository
A repository contains all project files, including the revision history.

Owner: bonn0062 Repository name: * / github_welcome ✓

Great repository names are short and memorable. Need inspiration? How about fantastic-meme?

Description (optional):
This is the official repository for the article, "Getting started with GitHub." Welcome to your very first open

Public Anyone can see this repository. You choose who can commit.
 Private You choose who can see and commit to this repository.

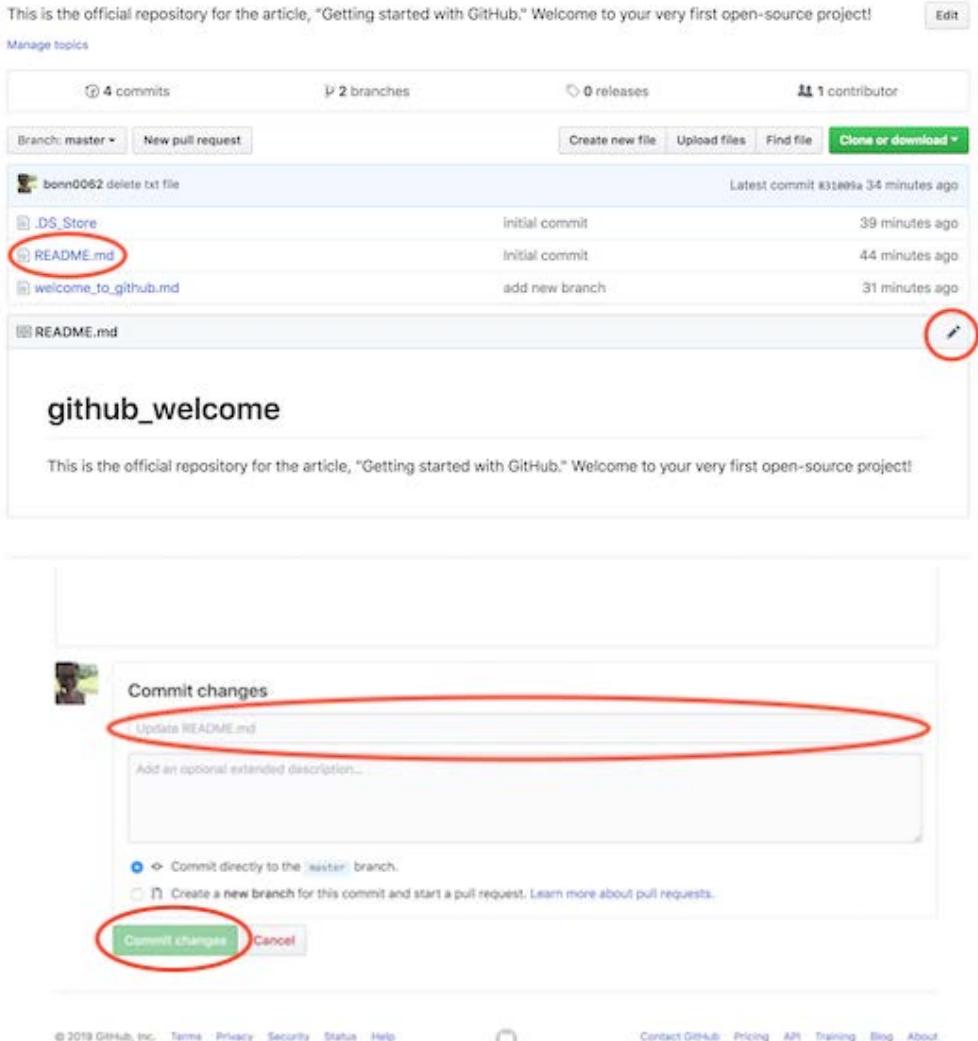
Initialize this repository with a README This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None Add a license: None

Create repository

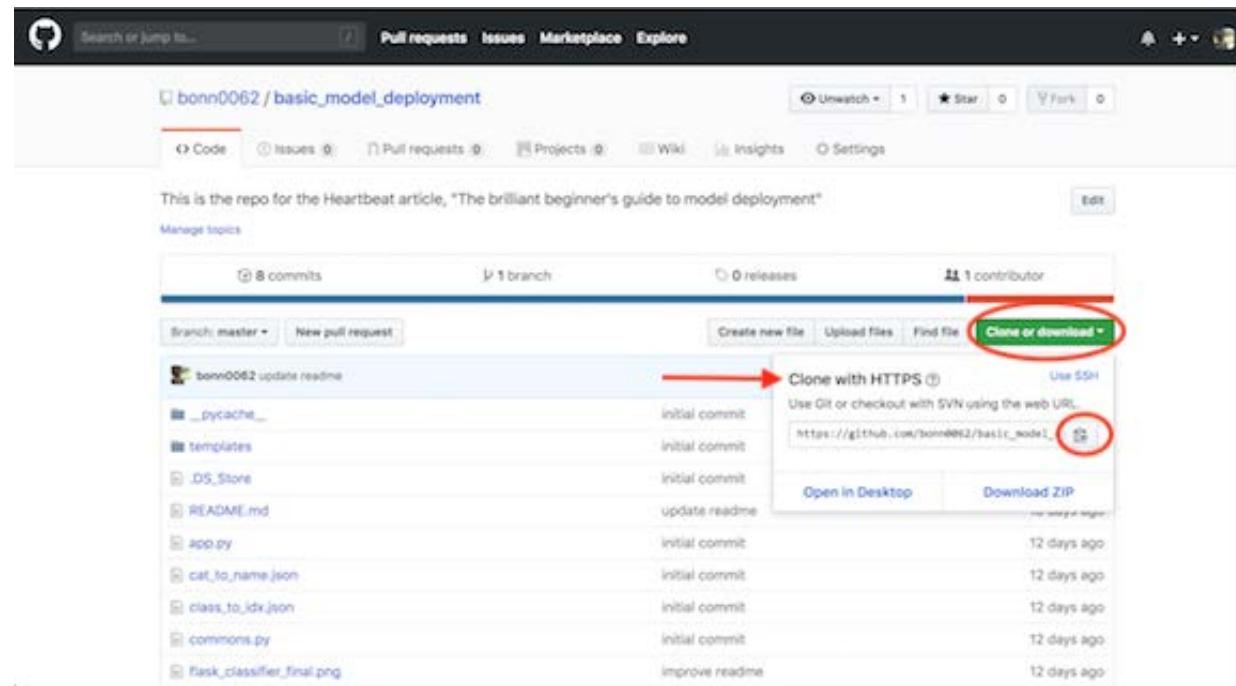
Making Edits

- Directly on **Github**
 - Open repository
 - Click on the name of the file and bring up that file
 - Click the pencil icon in the upper right corner of the file and make some changes.
 - Write a short message in the box that describes the changes you made (and an extended description if you want).
 - Click the “Commit changes” button.



Working with repositories

- **clone a repository** onto your computer -> go to the repository on the GitHub website and click the big green button that says “*Clone or download.*”
- **Make sure it says “Clone with HTTPS.”**
- Click the clipboard icon to copy and paste it to your clipboard (or highlight that link and copy it).



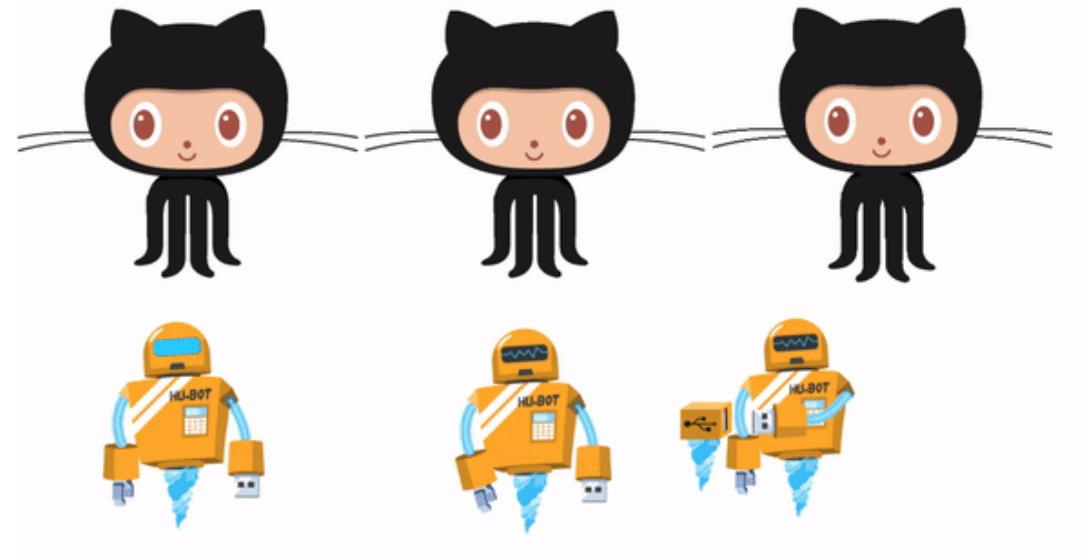
Working with repositories

- Open your terminal and go to the place where you want to save your repository

cd Desktop

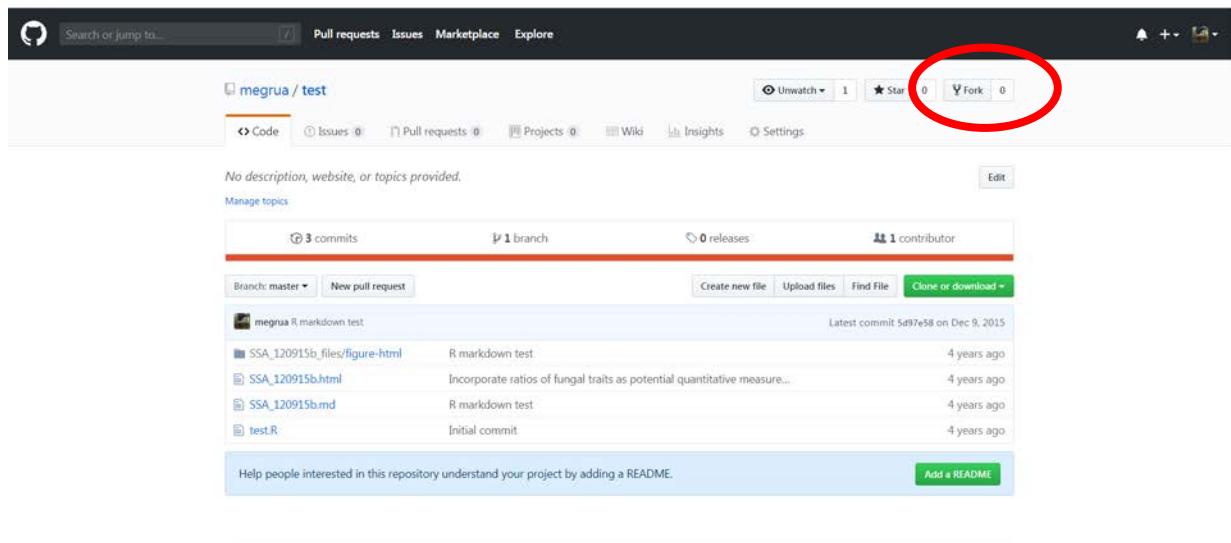
- To clone the repository:

*git clone
<that_thing_you_just_copied>*



Working with repositories

- If you want to modify the repository without changing the original, you can **fork** it on the **Github** website



Adding files to repositories

- Find your files and drag and drop them into the new folder for the repository that you created on your desktop
- In your terminal, navigate to the folder for your repository

`cd test`

- Check the status of the folder to see if everything is up to date

`git status`

- To add one file:
`git add "<filename>"`
- You add everything with:
`git add --all` OR `git add .`

NOTE: You're not actually changing anything yet, just bringing new files and changes to Git's attention

Adding files to repositories

- When you save a change, that's called a commit.
- When you make a commit, you'll include a message about what you changed and/or why you changed it. This is a great way to let others know what you've changed and why.
- To commit changes to the HEAD (local) repository:

git commit --m "<commit message>"

- To send the change to the remote (Github) repository:

git push

