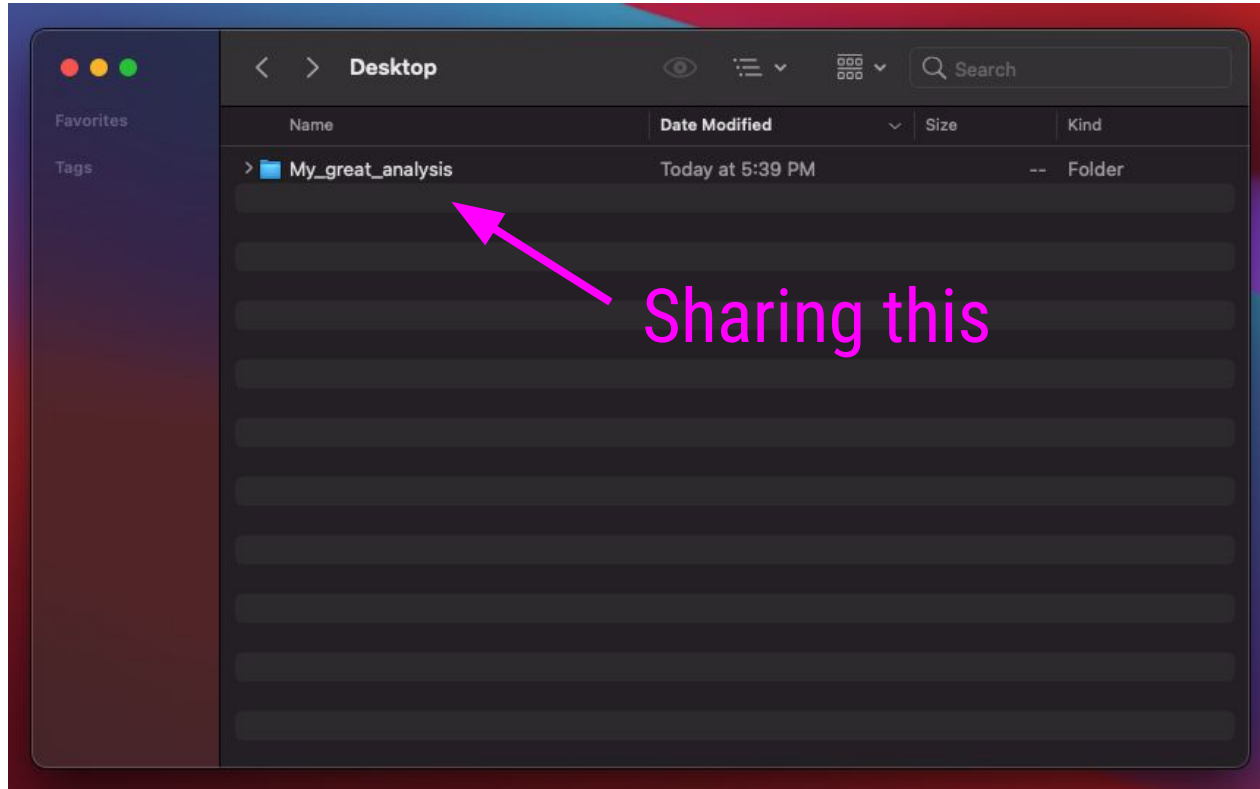
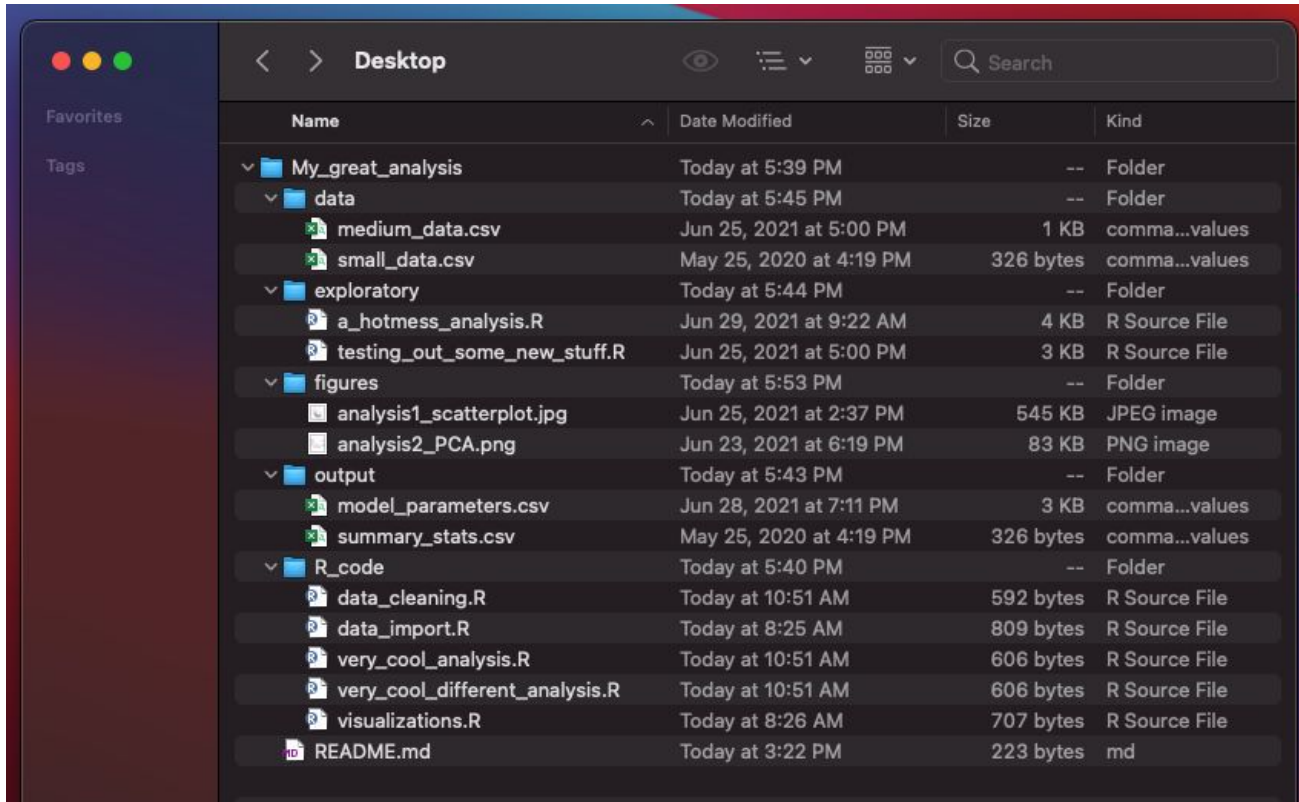


Version control with GitHub

What is the goal of making code?

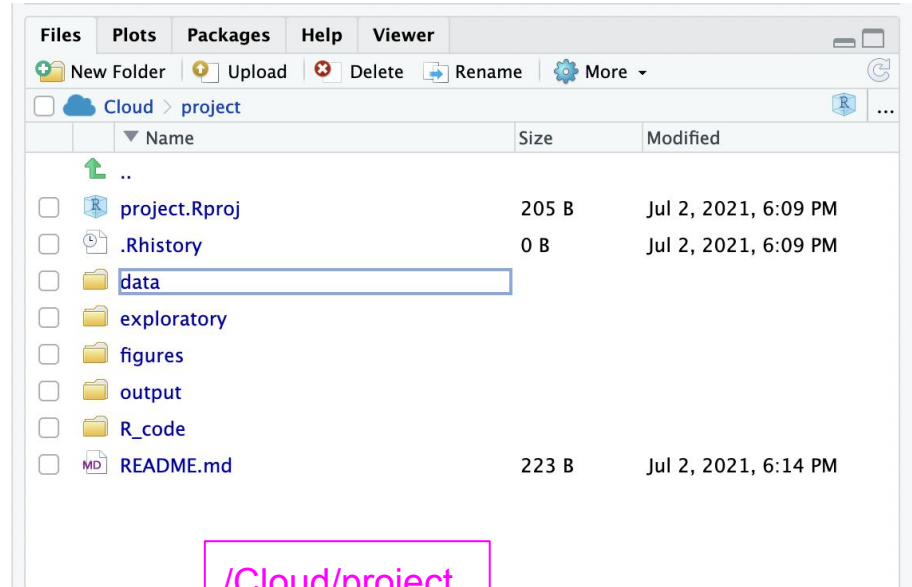
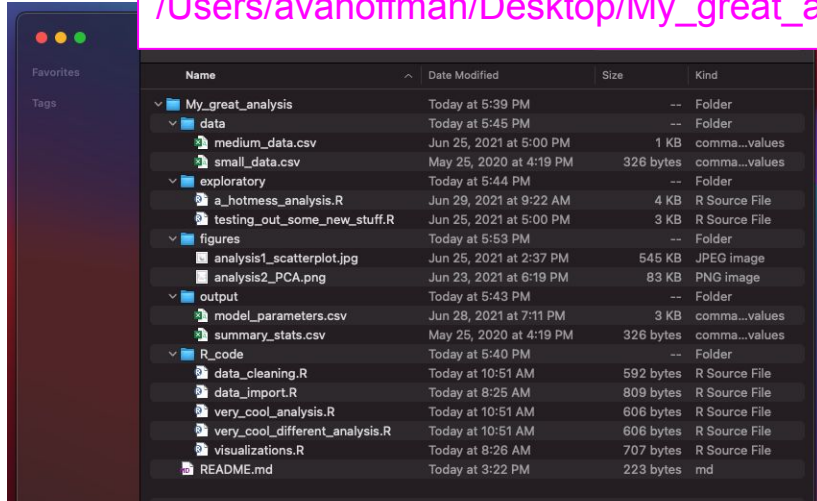


What is the goal of making code?



But first.. Where are we?

`/Users/avahoffman/Desktop/My_great_analysis`



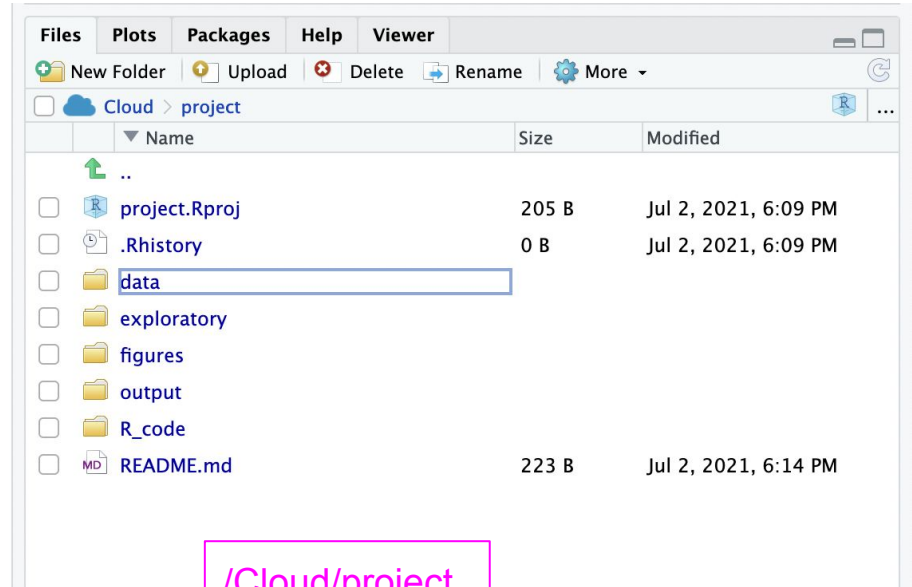
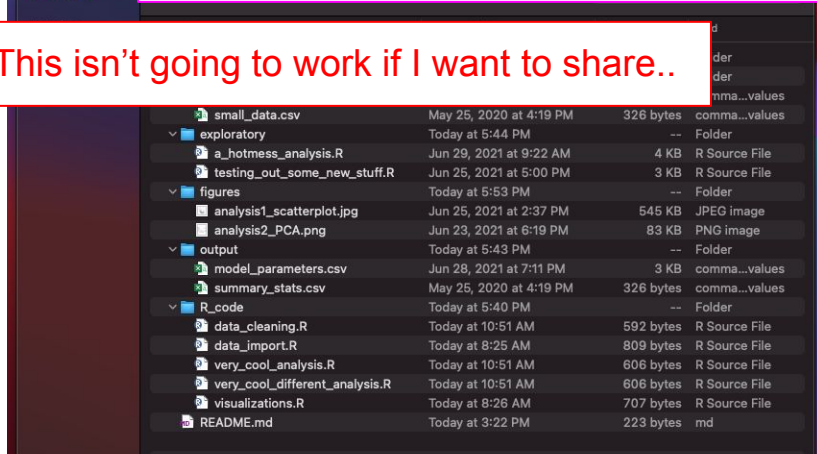
`/Cloud/project`

Absolute path Starts at
the root directory: `/`

But first.. Where are we?

`/Users/avahoffman/Desktop/My_great_analysis`

This isn't going to work if I want to share..

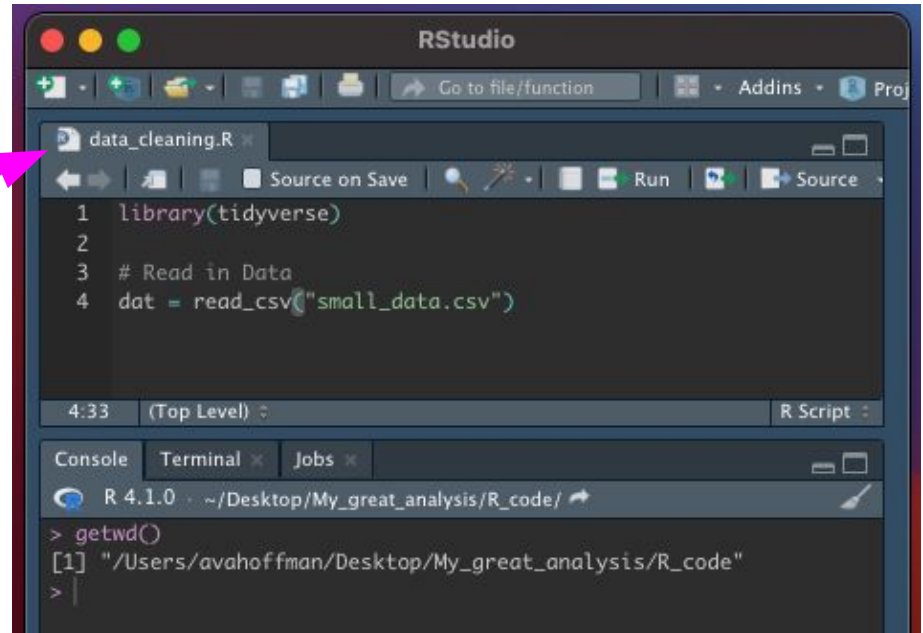
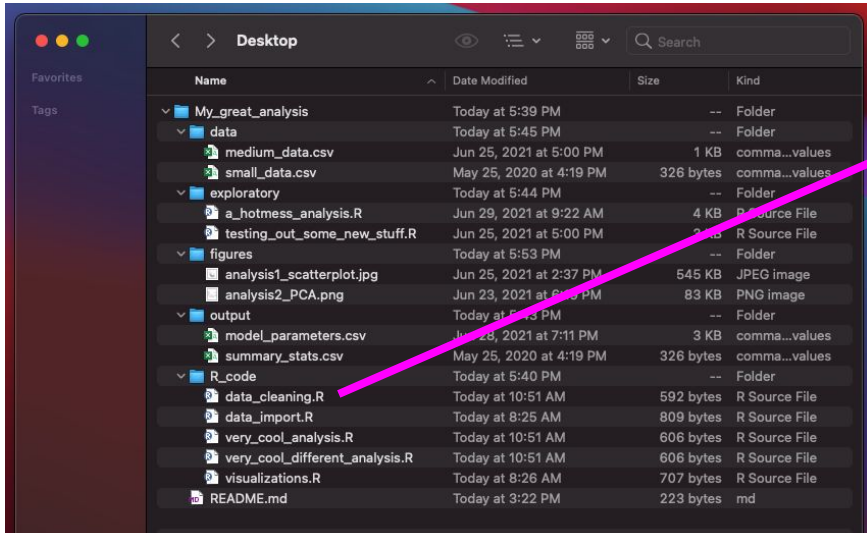


`/Cloud/project`

Absolute path Starts at
the root directory: `/`

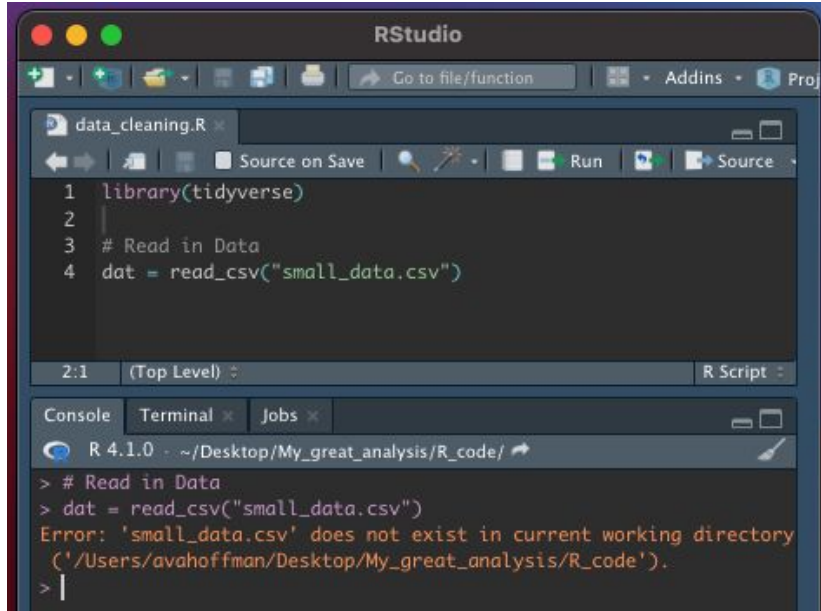
Enter the *relative* path!

Launch "data_cleaning.R"



R looks in /Users/avahoffman/Desktop/My_great_analysis/R_code

Enter the *relative* path!



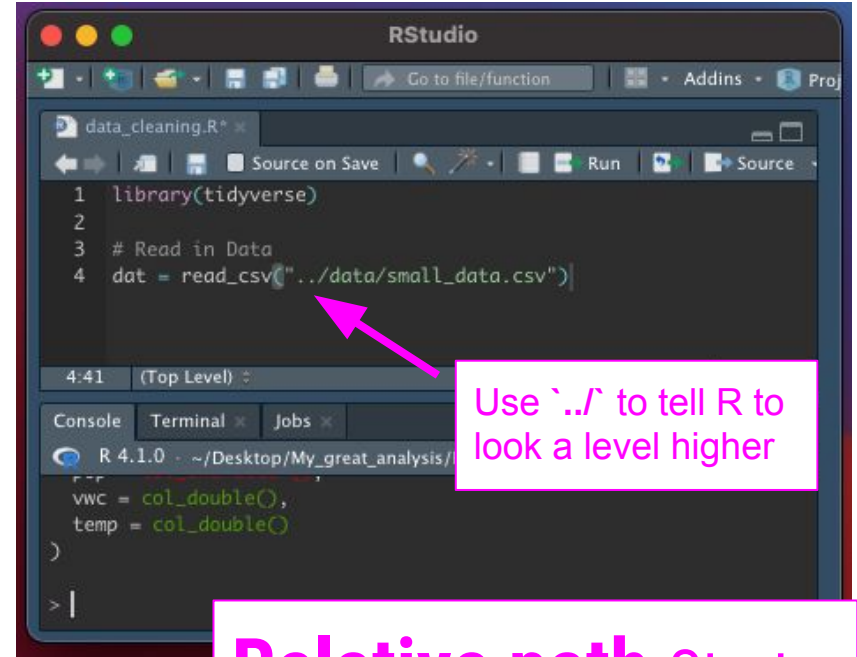
The screenshot shows the RStudio interface with a script editor containing the following code:

```
1 library(tidyverse)
2
3 # Read in Data
4 dat = read_csv("small_data.csv")
```

The console output shows the following error:

```
> # Read in Data
> dat = read_csv("small_data.csv")
Error: 'small_data.csv' does not exist in current working directory
('/Users/avahoffman/Desktop/My_great_analysis/R_code').
> |
```

The data isn't in
/Users/avahoffman/Desktop/My_great_analysis/R_code !



The screenshot shows the RStudio interface with the same script editor, but the code is updated to use a relative path:

```
1 library(tidyverse)
2
3 # Read in Data
4 dat = read_csv("../data/small_data.csv")
```

A pink arrow points to the relative path in the code. The console output shows the following code being executed:

```
4:41 (Top Level) :
vwc = col_double(),
temp = col_double()
)
> |
```

Use `../` to tell R to look a level higher

Relative path Starts
relative to another file

Enter the *relative* path + `.Rproj`

The screenshot shows the RStudio interface. The script editor on the left contains the following code:

```
1 library(tidyverse)
2 |
3 # Read in Data
4 dat = read_csv("/data/small_data.csv")
5 |
6 |
```

The console at the bottom shows the R prompt and the current directory: `R 4.0.3 · /cloud/project/`.

The file explorer on the right shows the contents of the `project` directory:

Name	Size	Modified
..		
.Rhistory	0 B	
data		
exploratory		
figures		
output		
project.Rproj	205 B	Jul 2, 2021, 6:
R_code		
README.md		

A pink arrow points from the `project.Rproj` file in the file explorer to the `dat = read_csv("/data/small_data.csv")` line in the script editor.

When a project is open, R knows to look relative to the `.Rproj` file

Click **File > New Project...** on your local machine if you need one

Relative path Starts *relative* to another file

Enter the *relative* path + `.Rproj`

The screenshot displays the RStudio interface. The top-left pane shows a script named `data_cleaning.R` with the following code:

```
1 library(tidyverse)
2 library(here)
3
4 here()
5
6 # Read in Data
7 dat = read_csv("/data/small_data.csv")
8
9
```

The bottom-left pane shows the console output for the `here()` function call:

```
R 4.0.3 - /cloud/project/
> here()
[1] "/cloud/project"
>
```

The right-hand pane shows the file explorer for the project directory, listing files and folders:

Name	Size	Modified
..		
.Rhistory	0 B	Jul 2, 2021, 6:
data		
exploratory		
figures		
output		
project.Rproj	205 B	Jul 2, 2021, 6:
R_code		
README.md		

A pink arrow points from the `here()` call in the console to the `here()` call in the script.

here () defines your base directory to be the directory where you have a .Rproj file

Relative path Starts *relative* to another file

Enter the *relative* path + .Rproj

The screenshot displays the RStudio environment with three main panels:

- Script Editor:** Shows R code for loading libraries and reading a CSV file using a relative path.

```
1 library(tidyverse)
2 library(here)
3
4 small_dat_path = here("data", "small_data.csv")
5
6 # Read in Data
7 dat = read_csv(small_dat_path)
8
9
```
- Console:** Shows the execution of the code, resulting in an absolute path.

```
> small_dat_path = here("data", "small_data.csv")
> small_dat_path
[1] "/cloud/project/data/small_data.csv"
>
```
- Files Panel:** Shows the project structure with a 'data' folder containing 'medium_data.csv' and 'small_data.csv'.

Two pink arrows point from the text boxes to the code and console output. A pink box highlights the `here()` function in the script editor, and another pink box explains the relative path concept.

here () can then be used to create absolute paths to files

Relative path Starts relative to another file

Absolute path

MAPQUEST.

Your house → Dinner → Movie Theater

- Very specific and helpful but only to **YOU**
- What happens if you move??



.Rproj + here()

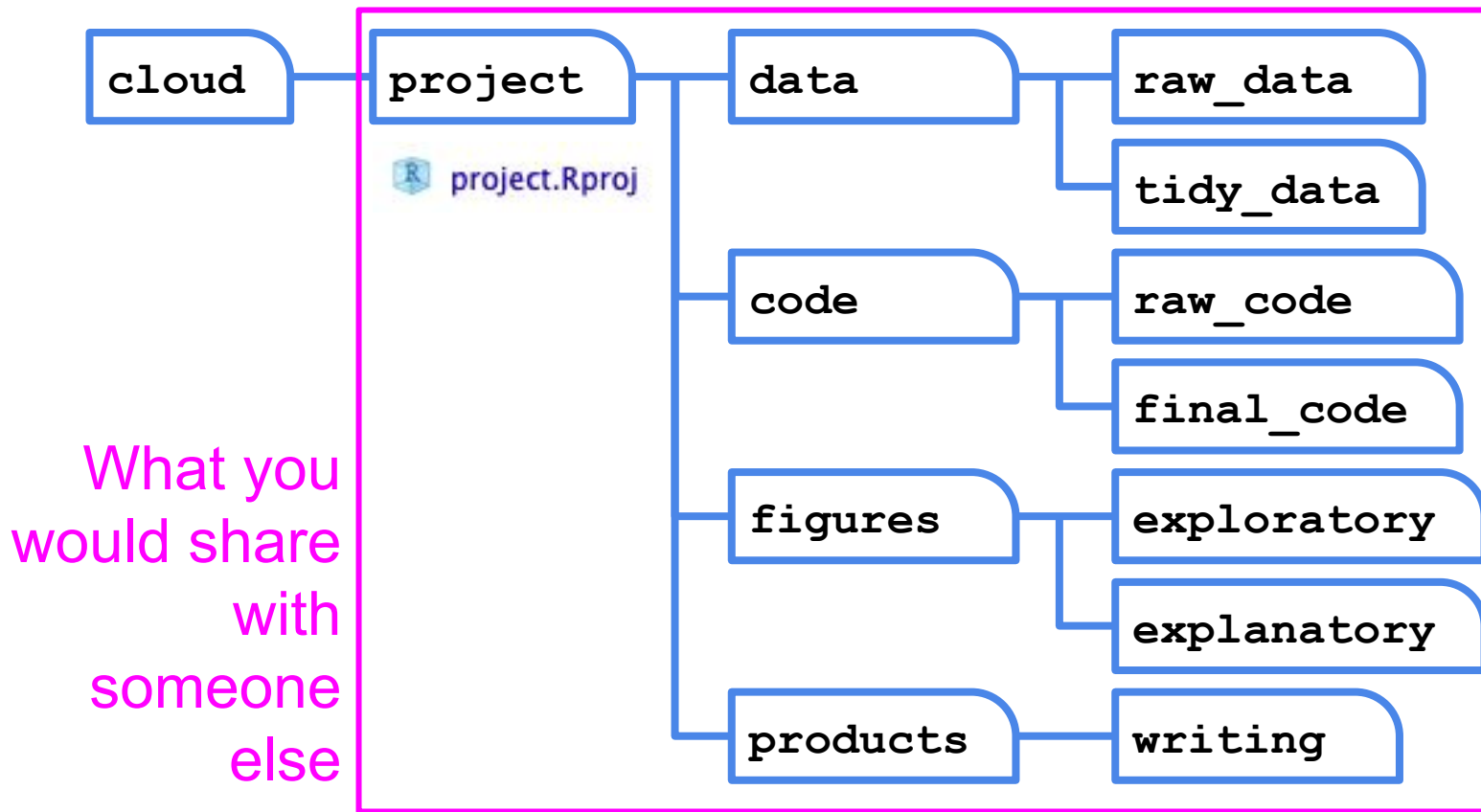
Relative path

Dinner → Movie Theater

- Useful to many people
- But you need to know where you're starting

Your GPS!

- Navigate from your current location



What you would share with someone else

All paths in your code should be relative to `/cloud/project`

So how do you efficiently share projects or folders structured like this with other people?

GitHub!

Unfortunate truth

<https://twitter.com/mtrc/status/617075570761965568>



Michael Cook

@mtrc



"Version control is a truly vital concept that has unfortunately been implemented by madmen." Amen.

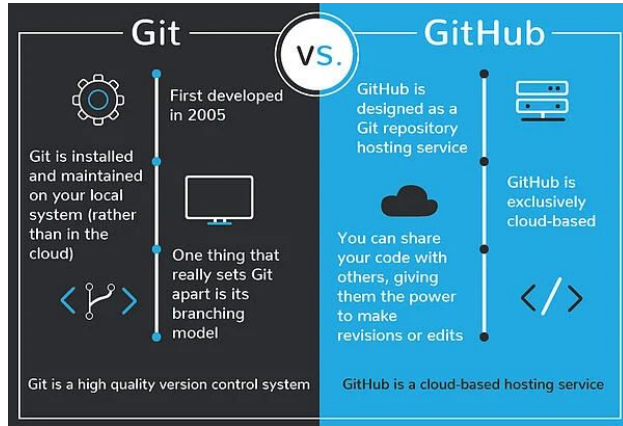
[twitter.com/Pentadact/stat...](https://twitter.com/Pentadact/status/617075570761965568)

5:00 PM - 3 Jul 2015

↩️ ↻ 9 ★ 11

Git commands have convenience
in mind, not intuition

What's the difference between Git and GitHub?



In Simple Terms

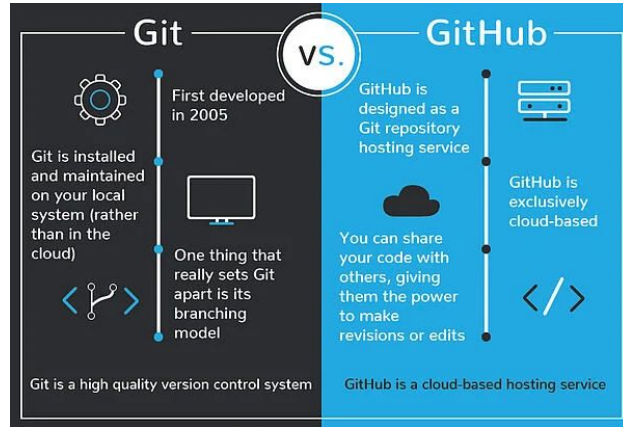
Git

is a version control system that lets you manage and keep track of your source code history

Git
Hub

is a cloud-based hosting service that lets you manage Git repositories

What's the difference between Git and GitHub?



In Simple Terms

Git is a version control system that lets you manage and keep track of your source code history

Git Hub is a cloud-based hosting service that lets you manage Git repositories

Git

Your entire work history

GitHub

LinkedIn

Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient **staging areas**, and **multiple workflows**.



About

The advantages of Git compared to other source control systems.



Documentation

Command reference pages, Pro Git book content, videos and other material.



Downloads

GUI clients and binary releases for all major platforms.



Community

Get involved! Bug reporting, mailing list, chat, development and more.



Pro Git by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).



 **Mac GUIs**

 **Tarballs**

 **Windows Build**

 **Source Code**

The image shows a browser window with the GitHub website. The browser's address bar displays "GitHub, Inc. [US] https://github.com". The page header includes the GitHub logo, a search bar, and navigation links for "Explore", "Features", "Enterprise", and "Blog". On the right side of the header, there are "Sign up" and "Sign in" buttons. The main content area has a dark background with the text "Build software better, together." in large white font. Below this, it says "Powerful collaboration, code review, and code management for open source and private projects. Need private repositories? Upgraded plans start at \$7/mo." To the right, there is a sign-up form with three input fields: "Pick a username", "Your email", and "Create a password". Below the password field, there is a note: "Use at least one lowercase letter, one numeral, and seven characters." A green "Sign up for GitHub" button is positioned below the form. At the bottom of the form area, there is a disclaimer: "By clicking 'Sign up for GitHub', you agree to our [terms of service](#) and [privacy policy](#). We will send you account related emails occasionally."

GitHub · Build software better, together

GitHub, Inc. [US] https://github.com

GitHub Search GitHub

Explore Features Enterprise Blog

Sign up Sign 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.

Pick a username

Your email

Create a password

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

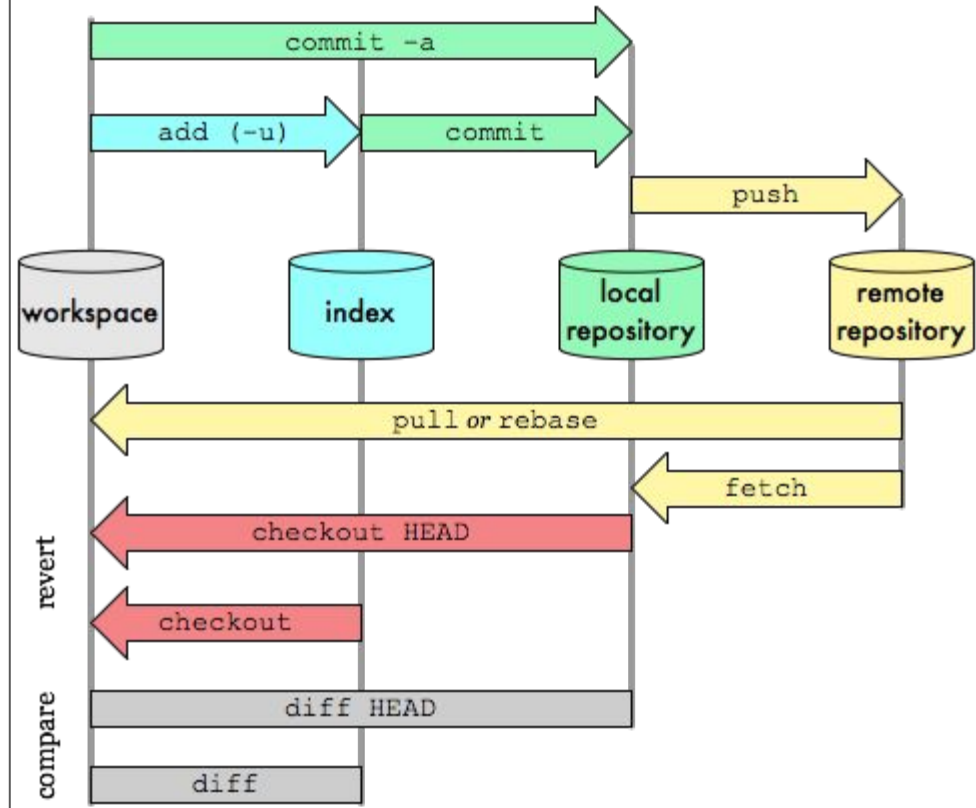
Sign up for GitHub

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

<https://github.com/>

Git Data Transport Commands

<http://osteele.com>



Basic use

- ▶ Change some files
- ▶ See what you've changed

```
git status  
git diff  
git log
```

- ▶ Indicate what changes to save

```
git add
```

- ▶ Commit to those changes

```
git commit
```

- ▶ Push the changes to GitHub

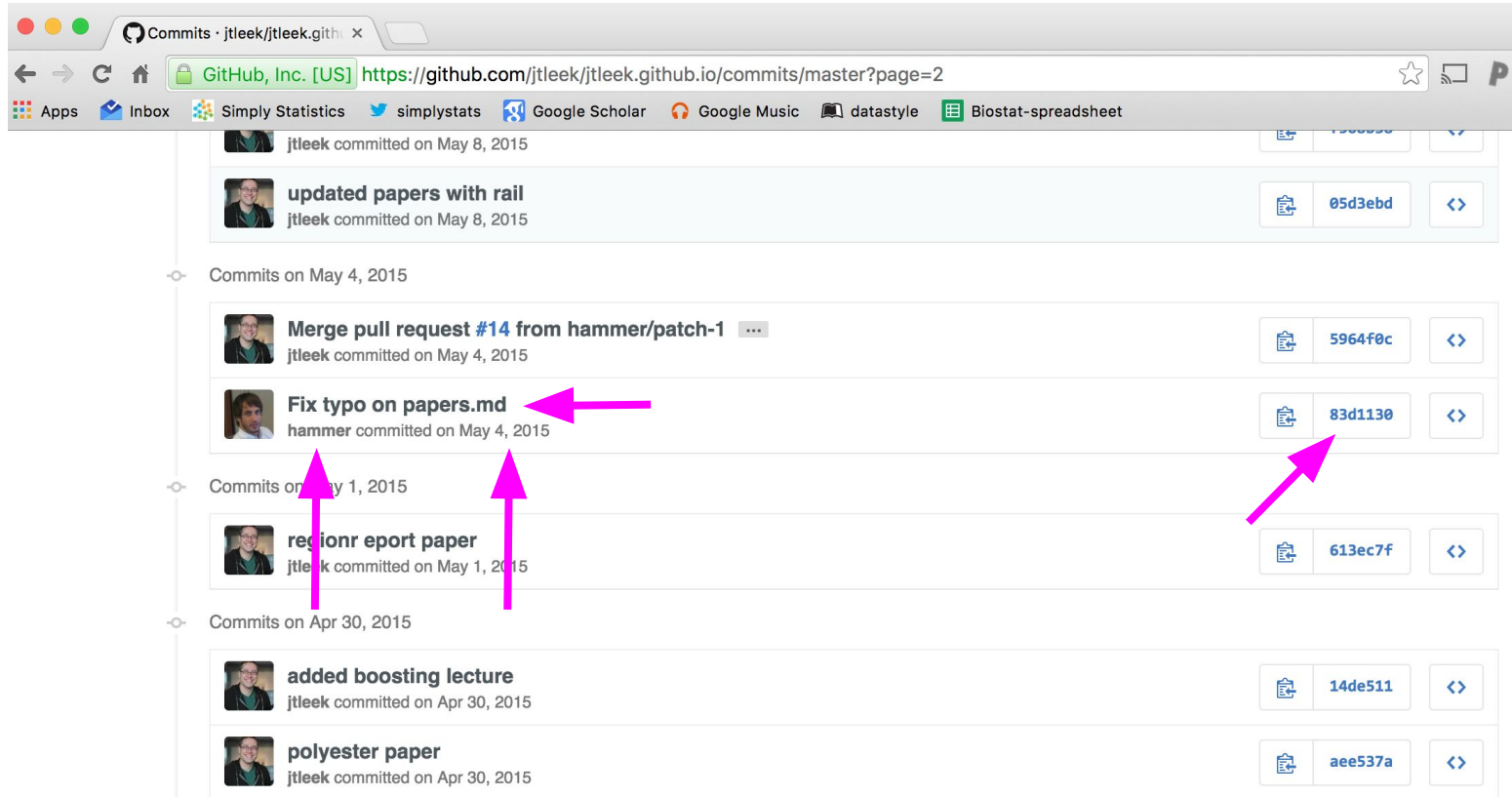
```
git push
```

- ▶ Pull changes from your collaborator

```
git pull
```

It's like a shared Dropbox folder that you have to sync yourself, on each of your computers, in specific orders

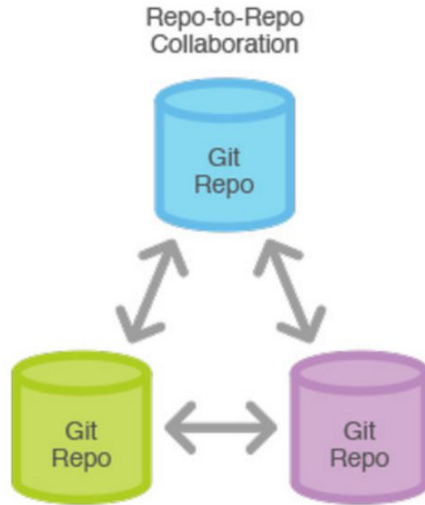
Why not just use Dropbox?



The image shows a screenshot of a web browser displaying the commit history of a GitHub repository. The browser's address bar shows the URL `https://github.com/jtleek/jtleek.github.io/commits/master?page=2`. The page lists several commits, each with a commit message, the author's name, and the date. Three pink arrows point to specific commits: one points to the commit message "Fix typo on papers.md", another points to the author's name "hammer", and a third points to the commit hash "83d1130".

Commit Date	Commit Message	Author	Commit Hash
May 8, 2015	updated papers with rail	jtleek	05d3ebd
May 4, 2015	Merge pull request #14 from hammer/patch-1	jtleek	5964f0c
May 4, 2015	Fix typo on papers.md	hammer	83d1130
May 1, 2015	region report paper	jtleek	613ec7f
Apr 30, 2015	added boosting lecture	jtleek	14de511
Apr 30, 2015	polyester paper	jtleek	ae537a

possible, in theory



more typical

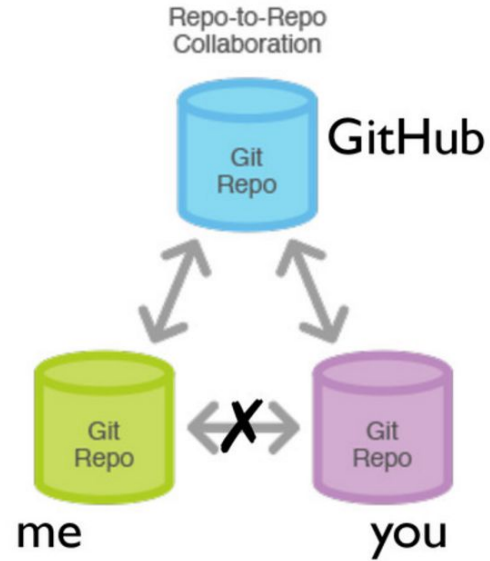


Image from <https://www.atlassian.com/git/tutorial/git-basics/#clone>

Jenny Bryan: <https://speakerdeck.com/jennybc/ubc-stat545-2015-cm001-intro-to-course>

SISBID / Data-Wrangling

Unwatch 13 Star 51 Fork 76

Code Issues Pull requests Actions Projects Wiki Security Insights

gh-pages 11 branches 1 tag

Go to file Add file Code

carriewright11 Merge pull request #35 from SISBI... ✓ faef211 5 hours ago 338 commits

data	all pdfs may be created	12 months ago
labs	Merge pull request #36 from SISBID/data_cleaning	5 hours ago
lecture_notes	Merge pull request #36 from SISBID/data_cleaning	5 hours ago
.gitignore	addeed token	12 months ago
.nojekyll	updated license, added webpage	6 years ago
Google_Doc_Syll.url	updating data io lab	12 months ago
LICENSE	updated license, added webpage	6 years ago
Module1.Rproj	smaller repo	12 months ago
README.md	Update README.md	9 days ago
all_the_packages.txt	all the packages added	12 months ago
download_pdfs.R	updated index and the pdfs	12 months ago
index.Rmd	fixing links for subsetting lab from 2 to 1	2 days ago
index.html	fixing links for subsetting lab from 2 to 1	2 days ago
list_all_packages.R	all the packages added	12 months ago

About

Teaching material for Summer Institute in Statistics for Big Data Module 1.

- Readme
- View license

Releases 1

2019 Final SISBID ... Latest on Jun 30, 2020

Packages

No packages published Publish your first package

Contributors 8



SISBID / Data-Wrangling

Unwatch 13 Star 51 Fork 76

Code Issues Pull requests Actions Projects Wiki Security Insights

gh-pages 11 branches 1 tag

Go to file Add file Code

	carriewright11 Merge pull request #35 from SISBI...	faef211 5 hours ago	338 commits
data	all pdfs may be created		12 months ago
labs	Merge pull request #36 from SISBID/data_cleaning		5 hours ago
lecture_notes	Merge pull request #36 from SISBID/data_cleaning		5 hours ago
.gitignore	addeed token		12 months ago
.nojekyll	updated license, added webpage		6 years ago
Google_Doc_Syll.url	updating data io lab		12 months ago
LICENSE	updated license, added webpage		6 years ago
Module1.Rproj	smaller repo		12 months ago
README.md	Update README.md		9 days ago
all_the_packages.txt	all the packages added		12 months ago
download_pdfs.R	updated index and the pdfs		12 months ago
index.Rmd	fixing links for subsetting lab from 2 to 1		2 days ago
index.html	fixing links for subsetting lab from 2 to 1		2 days ago
list_all_packages.R	all the packages added		12 months ago

About

Teaching material for Summer Institute in Statistics for Big Data Module 1.

Readme

View license

Releases 1

2019 Final SISBID ... Latest on Jun 30, 2020

Packages

No packages published Publish your first package

Contributors 8





Jenny Bryan

@JennyBryan



Following

I have my own ideas about what makes a good commit message.



`.travis.yml`

if this works, it will be a miracle

RETWEETS

7

LIKES

28



2:54 AM - 11 Jul 2016



7



28



<https://twitter.com/JennyBryan/status/752440799149846528>

AnVIL already has Git installed.
Install Git/Github Locally
(for later)

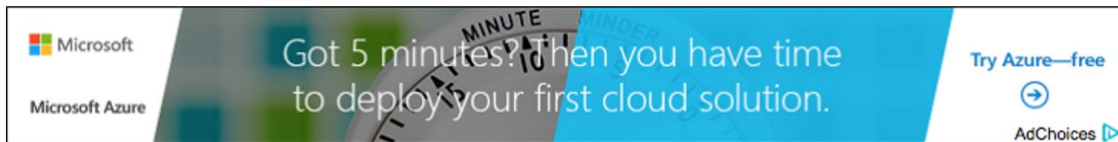
<http://happygitwithr.com/install-git.html>

and

<https://try.github.io/levels/1/challenges/1>

How the pros use git/github

How to keep the local file or the remote file during merge using Git and the command line?



asked 5 years ago
viewed 31361 times
active 17 days ago



I know how to merge modification using vimdiff, but, assuming I just know that the entire file is good to keep or to throw away, how do I do that?

75



I don't want to open vimdiff for each of them, I change want a command that says 'keep local' or 'keep remote'.



33

E.G: I got a merge with files marked as changed because somebody opened it under windows, changing the EOL, and then committed. When merging, I want to just keep my own version and discard his.

I'm also interested in the contrary: I screwed up big time and want to accept the remote file, discarding my changes.

git merge local

share improve this question

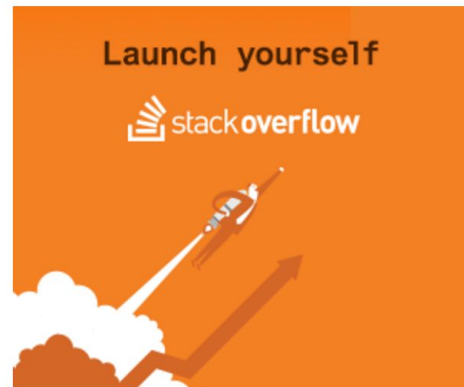
add a comment

asked Jul 11 '11 at 12:41



e-satis

238k 82 228 285



Looking for a job?

QA Engineer
InVenture Santa Monica, CA
\$90,000 - \$110,000 RELOCATION
android jenkins

Reload th

4 Answers

active oldest votes

The amount of Git skills necessary to fix a borked repo is an order of magnitude bigger than to bork it.

<https://github.com/jennybc/happy-git-and-github-for-the-user/blob/master/happy-git-and-github-for-the-user.pdf>



BURN IT ALL DOWN

<https://github.com/jennybc/happy-git-and-github-for-the-user/blob/master/happy-git-and-github-for-the-user.pdf>

THIS IS GIT. IT TRACKS COLLABORATIVE WORK
ON PROJECTS THROUGH A BEAUTIFUL
DISTRIBUTED GRAPH THEORY TREE MODEL.

COOL. HOW DO WE USE IT?

NO IDEA. JUST MEMORIZE THESE SHELL
COMMANDS AND TYPE THEM TO SYNC UP.
IF YOU GET ERRORS, SAVE YOUR WORK
ELSEWHERE, DELETE THE PROJECT,
AND DOWNLOAD A FRESH COPY.



"If that doesn't fix it, git.txt contains the phone number of a friend of mine who understands git. Just wait through a few minutes of 'It's really pretty simple, just think of branches as...' and eventually you'll learn the commands that will fix everything."

<https://xkcd.com/1597/>

Step 1: New repo on GitHub

avahoffman ▾

Repositories

Find a repository...

- SISBID/Data-Wrangling
- jhudsl/AnVIL_Book_Getting_Started
- avahoffman/blue-grama-gene-expression
- jhudsl/intro_to_r
- avahoffman/DESeq2-viz-demo
- jhudsl/jhudsl.github.io
- avahoffman/CV-and-resumes

Show more

Recent activity

Add Instructor checklist as...



All activity

- carriewright11 pushed to SISBID/Data-Wrangling 5 hours ago
 - 6 commits to gh-pages
 - 98387ee fixing links for subsetting lab from 2 to 1
 - faef211 Merge pull request #35 from SISBID/subsetting_part2
 - 4 more commits »
- carriewright11 pushed to SISBID/Data-Wrangling 2 days ago
 - 1 commit to subsetting_part2
 - 98387ee fixing links for subsetting lab from 2 to 1
- KatherineCox pushed to jhudsl/AnVIL_Book_Getting_Started 2 days ago
 - 1 commit to main
 - 00d7503 Render bookdown

The image shows a screenshot of the GitHub website. At the top, there is a navigation bar with the GitHub logo, a search bar, and links for Pulls, Issues, Marketplace, and Explore. On the right side of the navigation bar, there is a user profile icon and a plus sign icon. A dropdown menu is open from the plus sign icon, with the 'New repository' option highlighted in blue. A pink arrow points to this option. The main content area shows the profile of user 'avahoffman' with a list of repositories and a 'New' button. Below the repositories, there is a 'Recent activity' section with a link to 'Add Instructor checklist as...'. The right side of the page shows the 'All activity' section with a list of recent pushes to various repositories.

Search or jump to... / Pulls Issues Marketplace Explore

avahoffman ▾

Repositories New

Find a repository...

- SISBID/Data-Wrangling
- jhudsl/AnVIL_Book_Getting_Started
- avahoffman/blue-grama-gene-expression
- jhudsl/intro_to_r
- avahoffman/DESeq2-viz-demo
- jhudsl/jhudsl.github.io
- avahoffman/CV-and-resumes

Show more

Recent activity

- Add Instructor checklist as...

All activity

- carriewright11 pushed to SISBID/Data-Wrangling 5 hours ago
 - 6 commits to gh-pages
 - 98387ee fixing links for subsetting lab from 2 to 1
 - faef211 Merge pull request #35 from SISBID/subsetting_part2
 - 4 more commits »
- carriewright11 pushed to SISBID/Data-Wrangling 2 days ago
 - 1 commit to subsetting_part2
 - 98387ee fixing links for subsetting lab from 2 to 1
- KatherineCox pushed to jhudsl/AnVIL_Book_Getting_Started 2 days ago
 - 1 commit to main
 - 00d7503 Render bookdown

<https://github.com/>

Create a new repository


A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Repository template

Start your repository with a template repository's contents.

No template ▾

Owner *

 avahoffman ▾

Repository name *

my_first_project ✓

Great repository names are short and memorable. Need inspiration? How about [fuzzy-pancake?](#)

Description (optional)

My first project files



Public

Anyone on the internet can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.



Add a README file

This is where you can write a long description for your project. [Learn more](#).



Add .gitignore

Choose which files not to track from a list of templates. [Learn more](#).



Choose a license

A license tells others what they can and can't do with your code. [Learn more](#).

This will set `main` as the default branch. Change the default name in your [settings](#).

Create repository

<https://github.com/new>



Search or jump to...

Pulls Issues Marketplace Explore



avahoffman / my_first_project

Unwatch 1

Star 0

Fork 0

Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights



main

Go to file

Add file

Code

About



avahoffman Initial commit



README.md

Initial commit

README.md

my_first_project

My first project files

Clone

HTTPS SSH GitHub CLI

https://github.com/avahoffman/my_first

Open with GitHub Desktop

Download ZIP

My first project files

Readme

Releases

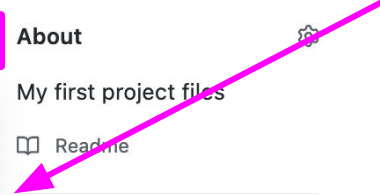
No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)



Step 2: Create “local” link



File

Edit

Code

View

Plots

Session

Build

Debug

Profile

Tools

Help



Go to file/function



Addins

Console

Term

Create a project



R 4.2.0 · ~/

```
R version 4.2.0 (2022-04-22) -- "Vigorous Calisthenics"  
Copyright (C) 2022 The R Foundation for Statistical Computing  
Platform: x86_64-pc-linux-gnu (64-bit)
```

```
R is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute it under certain conditions.  
Type 'license()' or 'licence()' for distribution details.
```

New Project Wizard

Create Project



New Directory

Start a project in a brand new working directory



Existing Directory

Associate a project with an existing working directory




Version Control

Checkout a project from a version control repository




Cancel

123 MiB 

Environment is empty

Viewer

 Upload  Delete

Size

New Project Wizard

Back

Create Project from Version Control



Git

Clone a project from a Git repository



Subversion

Checkout a project from a Subversion repository



Cancel

New Project Wizard

Back

Clone Git Repository



Repository URL:

Project directory name:

Create project as subdirectory of:

Browse...

Create Project

Cancel

160 MiB

Environment is empty

Viewer

Upload Delete Rename

Size M

741 B J

499 B J

2.2 KB J

169 B J

880.6 KB J

8.7 KB J

labs

lecture notes

Step 3: Change stuff

```
1 # My first script
```

Environment History Connections Git Tutorial

Import Dataset 230 MiB

R Global Environment

Environment is empty

Files Plots Packages Help Viewer

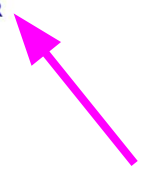
Home > my_first_project

Name	Size	Modified
..		
.gitignore	40 B	Jul 24, 2022, 9:42 PM
my_first_project.Rproj	205 B	Jul 24, 2022, 9:42 PM
my-script.R	17 B	Jul 24, 2022, 9:43 PM

R 4.2.0 · ~/my_first_project/

R version 4.2.0 (2022-04-22) -- "Vigorous Calisthenics"
Copyright (C) 2022 The R Foundation for Statistical Computing
Platform: x86_64-pc-linux-gnu (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.



Environment History Connections Git Tutorial

Diff Commit [down arrow] [up arrow] [clock icon] [gear icon] main [refresh icon]

Staged	Status	Path
<input type="checkbox"/>	? ?	.gitignore
<input type="checkbox"/>	? ?	my-script
<input type="checkbox"/>	? ?	my_first_project.Rproj

1

2

Changes History main Stage Revert Ignore

Pull Push

Staged	Status	Path
<input checked="" type="checkbox"/>	A	.gitignore
<input checked="" type="checkbox"/>	A	my-script.R
<input checked="" type="checkbox"/>	A	my_first_project.Rproj

Commit message 22 characters

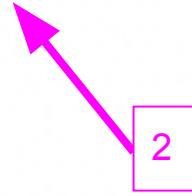
Created my script file

Amend previous commit

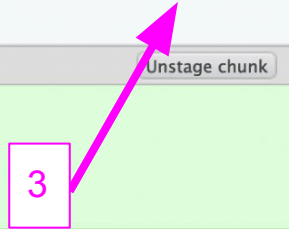
Commit



1



2

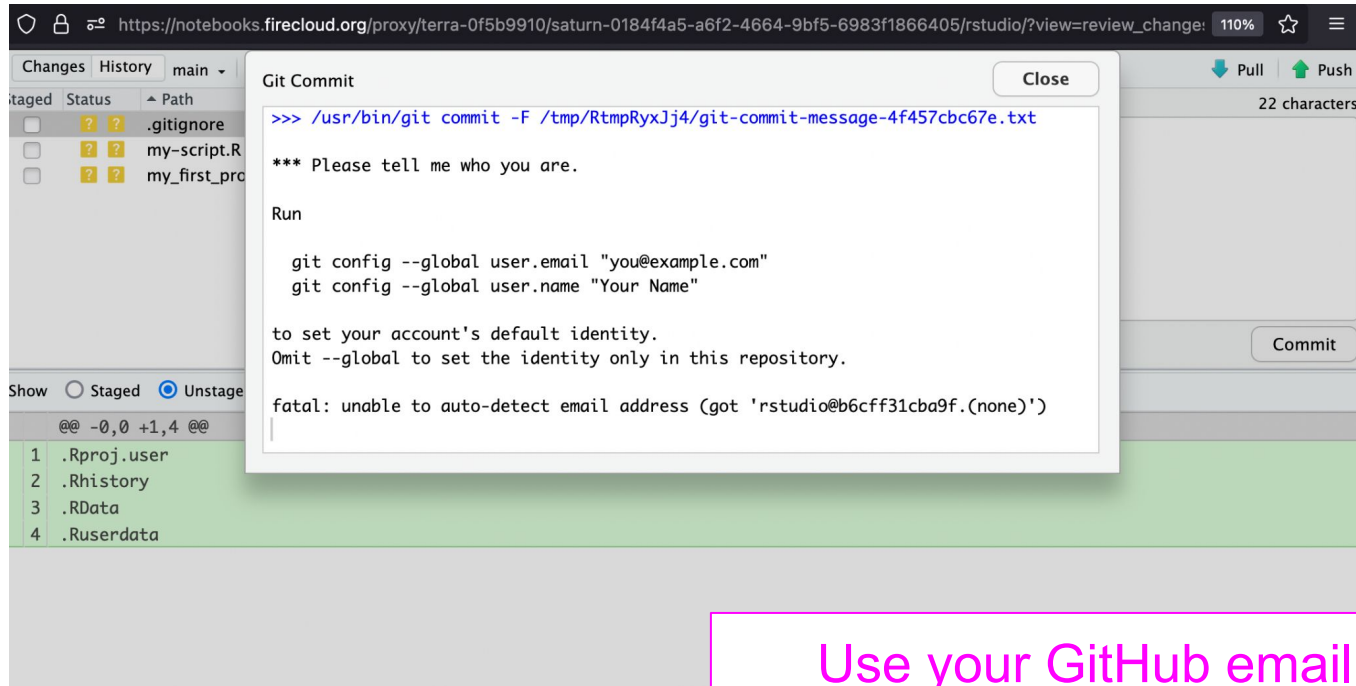


3

Staged Unstaged Context 5 lines Ignore Whitespace Unstage All

```
@@ -0,0 +1,4 @@  
1 .Rproj.user  
2 .Rhistory  
3 .RData  
4 .Ruserdata
```

You might be prompted for more information



The screenshot shows a web-based Git interface. A modal window titled "Git Commit" is open, displaying the following text:

```
>>> /usr/bin/git commit -F /tmp/RtmpRyxJj4/git-commit-message-4f457cbc67e.txt
```

*** Please tell me who you are.

Run

```
git config --global user.email "you@example.com"
git config --global user.name "Your Name"
```

to set your account's default identity.
Omit --global to set the identity only in this repository.

```
fatal: unable to auto-detect email address (got 'rstudio@b6cff31cba9f.(none)')
```

The background interface shows a file explorer with files like `.gitignore`, `my-script.R`, and `my_first_pro`. A "Commit" button is visible on the right side of the interface.

Use your GitHub email and display name

You might be prompted for more information



The screenshot shows the RStudio interface with a terminal window open. The terminal title is 'Terminal 1' and the current directory is '/home/rstudio/my_first_project'. The terminal output shows three lines of commands and their results:

```
rstudio@b6cff31c1ba9f:~/my_first_project$ git config --global user.email "avamariehoffman@gmail.com"
rstudio@b6cff31c1ba9f:~/my_first_project$ git config --global user.name "AM Hoffman"
rstudio@b6cff31c1ba9f:~/my_first_project$
```

A pink arrow points from a pink-bordered box containing the text 'Use the RStudio Terminal' to the 'Terminal 1' tab in the RStudio interface.

Use the RStudio Terminal

ory main ▾

is ahead of 'orig

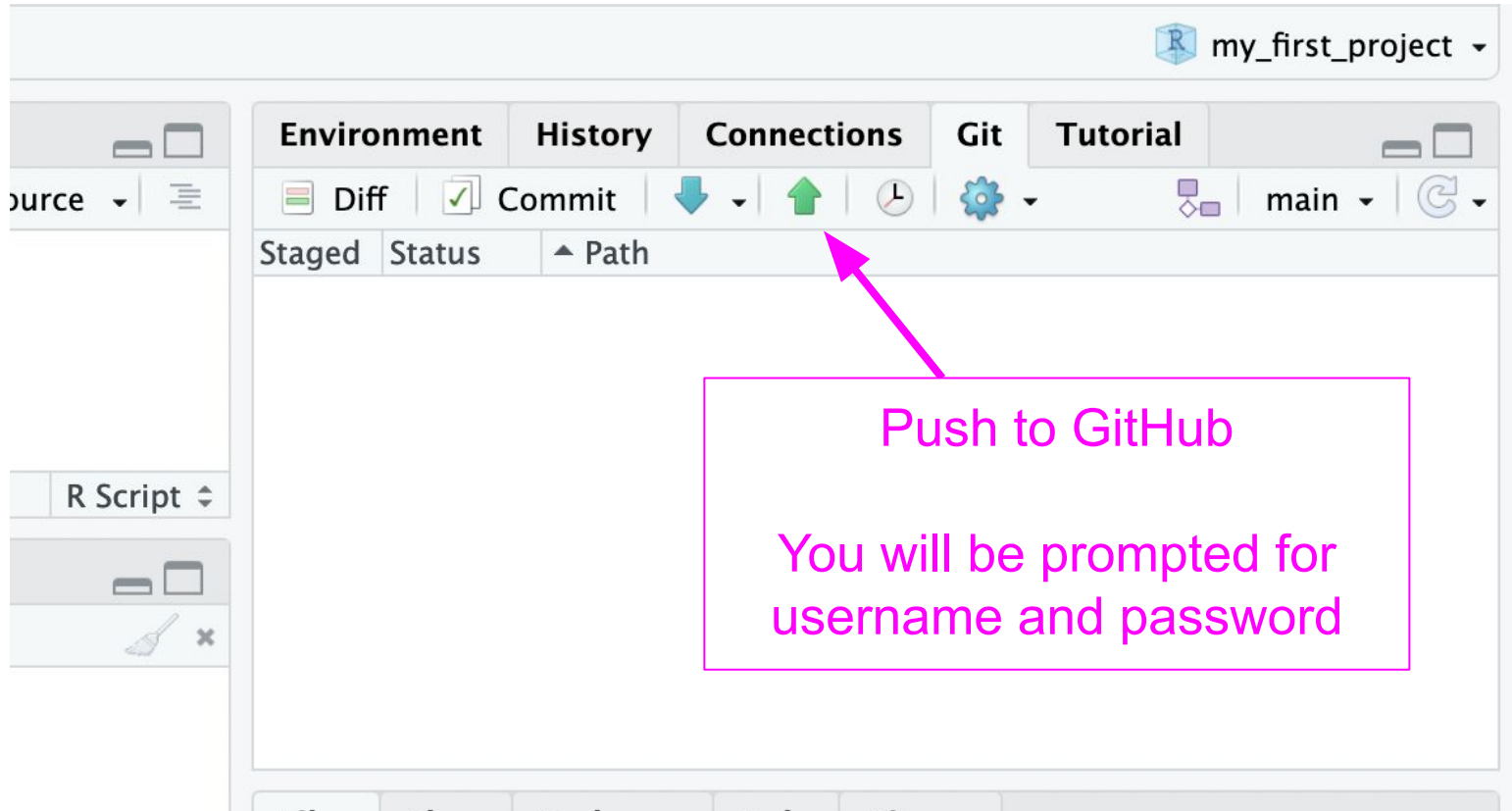
▲ Path

d Unstage

Git Commit






Close

```
>>> /usr/bin/git commit -F /tmp/RtmpRyxJj4/git-commit-message-4f4261ceab0.txt
[main 0e67afd] Created my script file
3 files changed, 18 insertions(+)
create mode 100644 .gitignore
create mode 100644 my-script.R
create mode 100644 my_first_project.Rproj
```



main 2 branches 0 tags

Go to file Add file Code

 avahoffman Update README.md	0bf19d7 now	5 commits
 .gitignore	Created my script file	4 minutes ago
 README.md	Update README.md	now
 my-script.R	Created my script file	4 minutes ago
 my_first_project.Rproj	Created my script file	4 minutes ago

README.md

my_

Success!



About

My first project files

- Readme
- 0 stars
- 1 watching
- 0 forks

Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

Languages

- R 100.0%

Review

- You add/edit files in your AnVIL project or personal computer (your **local repository**).
- You publish/share these changes to a **remote repository** (GitHub) so that others may see them/incorporate them into their own work.
- Git commands
 - `git status`
 - `git add .`
 - `git commit -m "A message here"`
 - `git push`

Staging files and folders with git add

<code>git add file_or_folder</code>	stages specified file or folder
<code>git add .</code>	stages new and modified files
<code>git add -u</code>	stages modified and deleted files
<code>git add -A</code>	stages new, modified, and deleted files
<code>git add *.csv</code>	Stages any files with .csv extension
<code>git add *</code>	Use with caution: stages everything

**Step 4: Incorporate changes
made by others**

<> Edit file

Preview

 Show diff

my_first_project

Here is a description of the project.

Updating the readme on remote
(on GitHub) - simulates changes
made by others



Commit changes

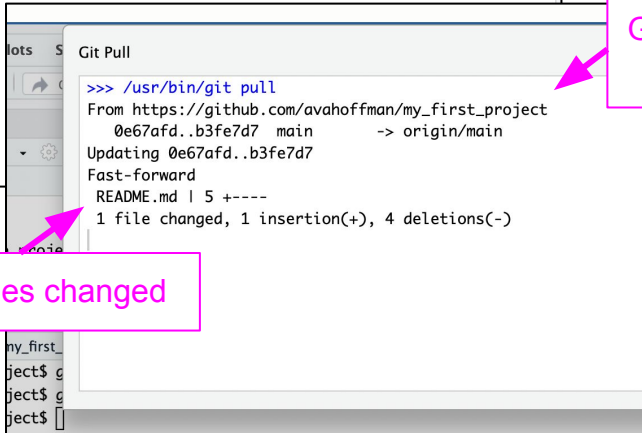
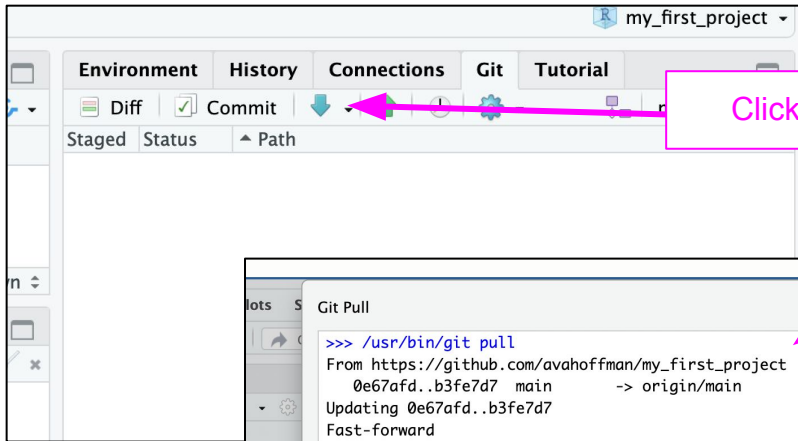
Update README.md

Add an optional extended description...

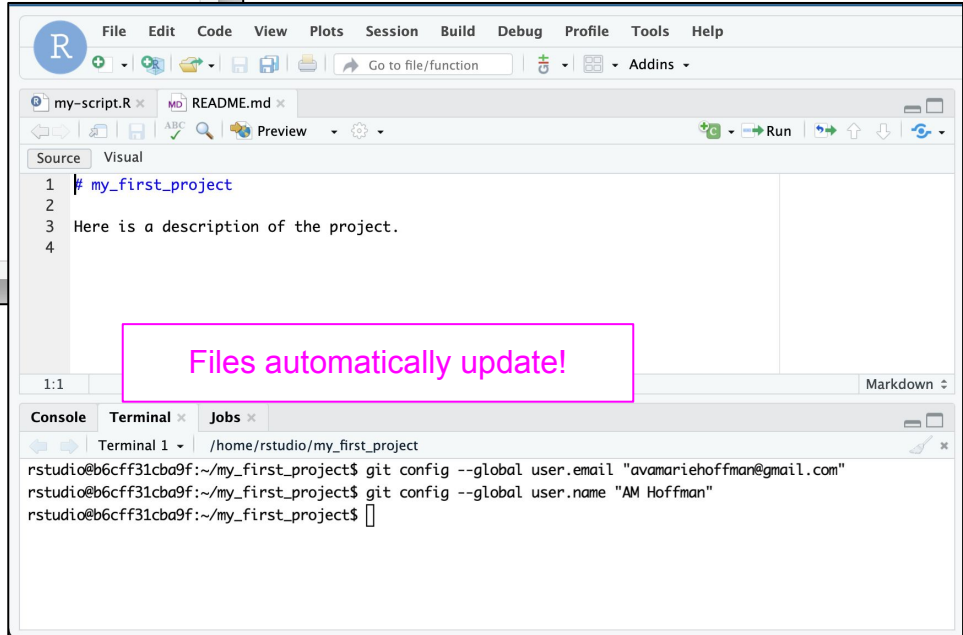
- Commit directly to the `main` branch.
- Create a **new branch** for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes

Cancel



Git pull incorporates changes from remote repository



Pulling

- Others have pushed changes to the remote repository.
- You want to incorporate those changes into your local repository.
- Git commands
 - `git pull`

When working with others, you should create **branches** so you don't overwrite work by others. Let us know if you want to learn more about this!

Danger-free commands

<https://git-school.github.io/visualizing-git/>

git - the simple guide

<https://rogerdudler.github.io/git-guide/>

git cheat sheet

learn more about git the simple way at rogerdudler.github.io/git-guide/
client sheet created by N.ra. | [eschke of ninjabits.com](https://www.ninjabits.com)

create & clone

create new repository `git init`
clone local repository `git clone /path/to/repository`
clone remote repository `git clone username@host:/path/to/repository`

add & remove

add changes to INDEX `git add <filename>`
add all changes to INDEX `git add *`
remove/delete `git rm <filename>`

commit & synchronize

commit changes `git commit -m "Commit message"`
push changes to remote repository `git push origin master`
connect local repository to remote repository `git remote add origin <server>`
update local repository with remote changes `git pull`

branches

create new branch `git checkout -b <branch>`
e.g. `git checkout -b feature_x`
switch to master branch `git checkout master`
delete branch `git branch -d <branch>`
push branch to remote repository `git push origin <branch>`

merge

merge changes from another branch `git merge <branch>`
view changes between two branches `git diff <source_branch> <target_branch>`
e.g. `git diff master_x feature_y`

tagging

create tag `git tag <tag> <commit ID>`
e.g. `git tag 1.0.0 1b2e1663ff`
get commit IDs `git log`

restore

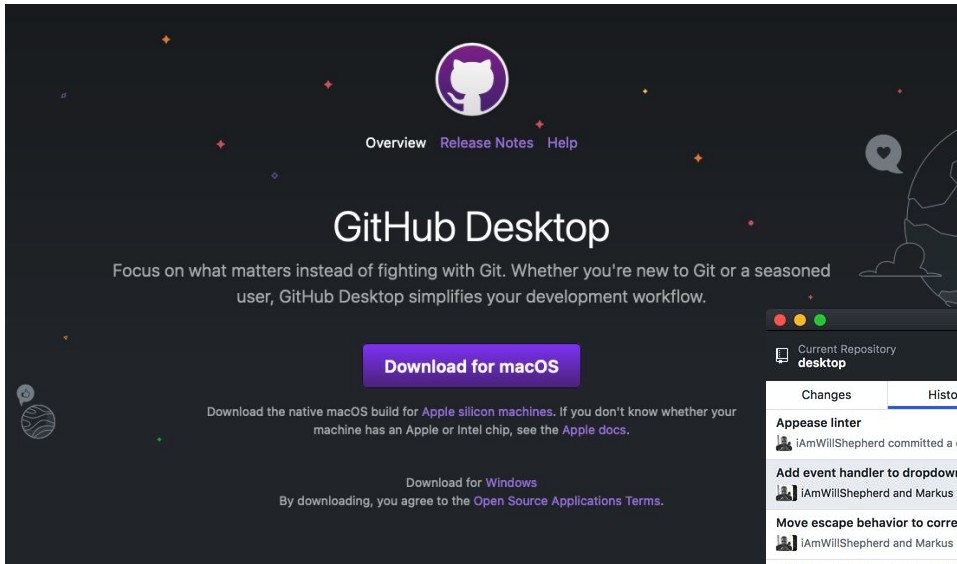
replace working copy with latest from HEAD `git checkout -- <filename>`



Tip

Want a simple but powerful
git-client for your mac?
Try Tower: www.git-tower.com/

https://rogerdudler.github.io/git-guide/files/git_cheat_sheet.pdf



Changes	History	Diff
Add event handler to dropdown component iAmWillShepherd and Markus Olsson committed - c79e71c 1 changed file		
Co-Authored-By: Markus Olsson <nirik@users.noreply.github.com>		
app/src/ui/t.../dropdown.tsx		
	145	145
	146	146
	147	147
	148	148
	149	149
	150	150
	151	151
	148	152
	149	153
	150	154
	249	253
	250	254
	251	255
	256	256
	257	257
	258	258

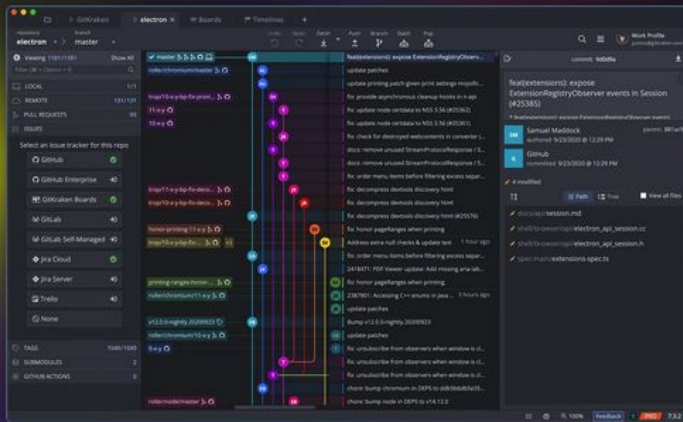
```
@@ -145,6 +145,10 @@ export class ToolbarDropdown extends React.Component<
  this.state = { clientRect: null }
}
+ private get isOpen() {
+   return this.props.dropdownState === 'open'
+ }
private dropdownIcon(state: DropdownState): OcticonSym
bol {
  // @TODO: Remake triangle octicon in a 12px version,
  // right now it's scaled badly on normal dpi monitor
  s.
@@ -249,6 +253,13 @@ export class ToolbarDropdown extends
  React.Component<
  }
}
+ private onFoldoutKeyDown = (event:
  React.KeyboardEvent<HTMLInputElement>) => {
+   if (!event.defaultPrevented && this.isOpen &&
  event.key === 'Escape') {
+     event.preventDefault()
  }
```

<https://desktop.github.com/>



GitKraken

Legendary Git GUI client for Windows, Mac & Linux



 Download the #1 Free Git GUI

Other Platforms

See Features →

<https://www.gitkraken.com/>

Nice practice

<https://www.katacoda.com/courses/git>