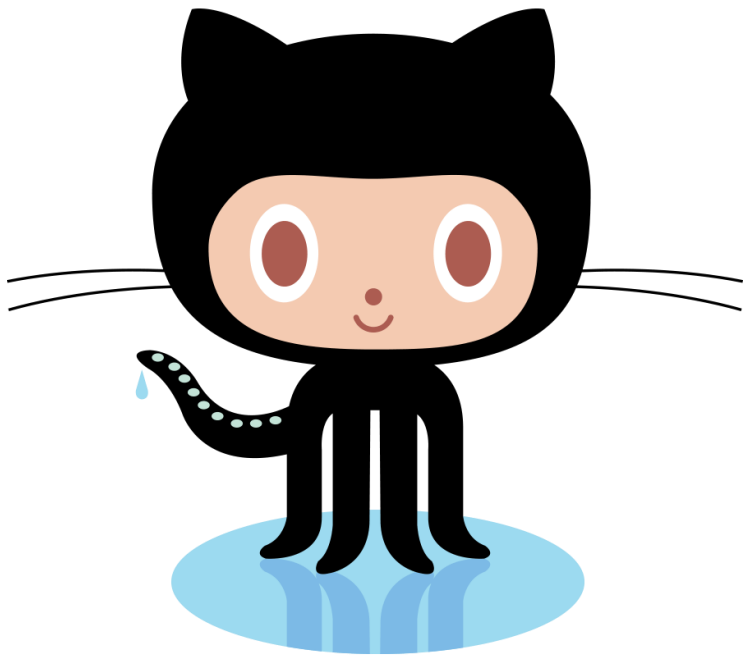

Intro to Git & Github





GitHub

Code sharing platform



git

Version control
system

Why version control?

- Backups
- Experimentation
- Collaboration

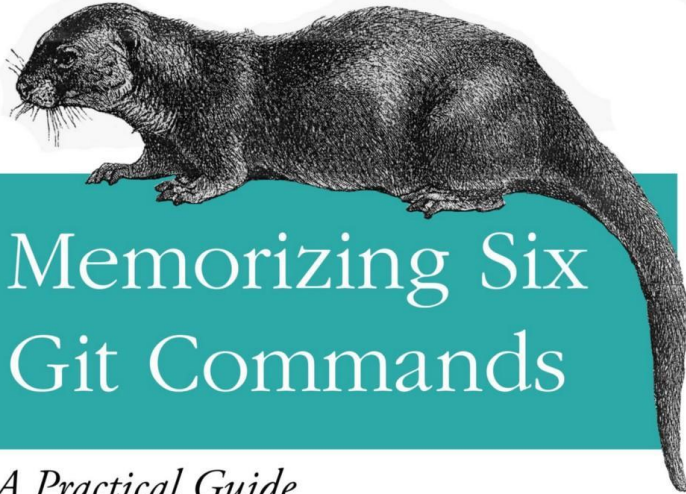


```
[carolyn (master) sample $ git log --oneline --decorate
16f975f (HEAD -> master) resolved merge
99f608f (eng) fix text - engineering
5a38486 (compsci) Change to computer science
3692423 Hi compsci
4b1dd35 Welcome IEEE
2620856 Initial commit
```

Repository

- Snapshots of your code
 - ***You*** decide when to take the snapshot
-

The popular approach to version control



Memorizing Six Git Commands

A Practical Guide

O RLY?

@ThePracticalDev

- git clone
- git add
- git commit
- git status
- git pull
- git push

And a few more...

- git log
- git branch
- git checkout
- git merge
- git diff

Pros

- Powerful
- Versatile
- Abstract



Cons

- Complex
- Not much UI
- Need to impose a workflow

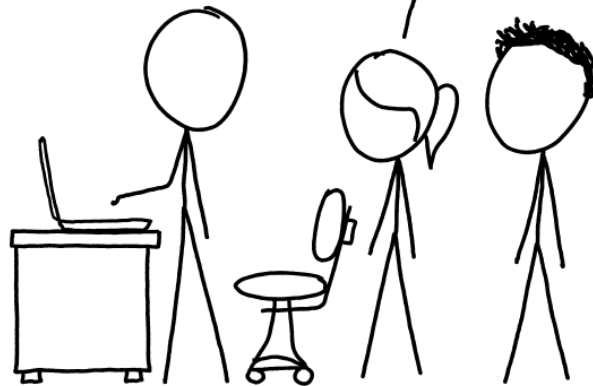




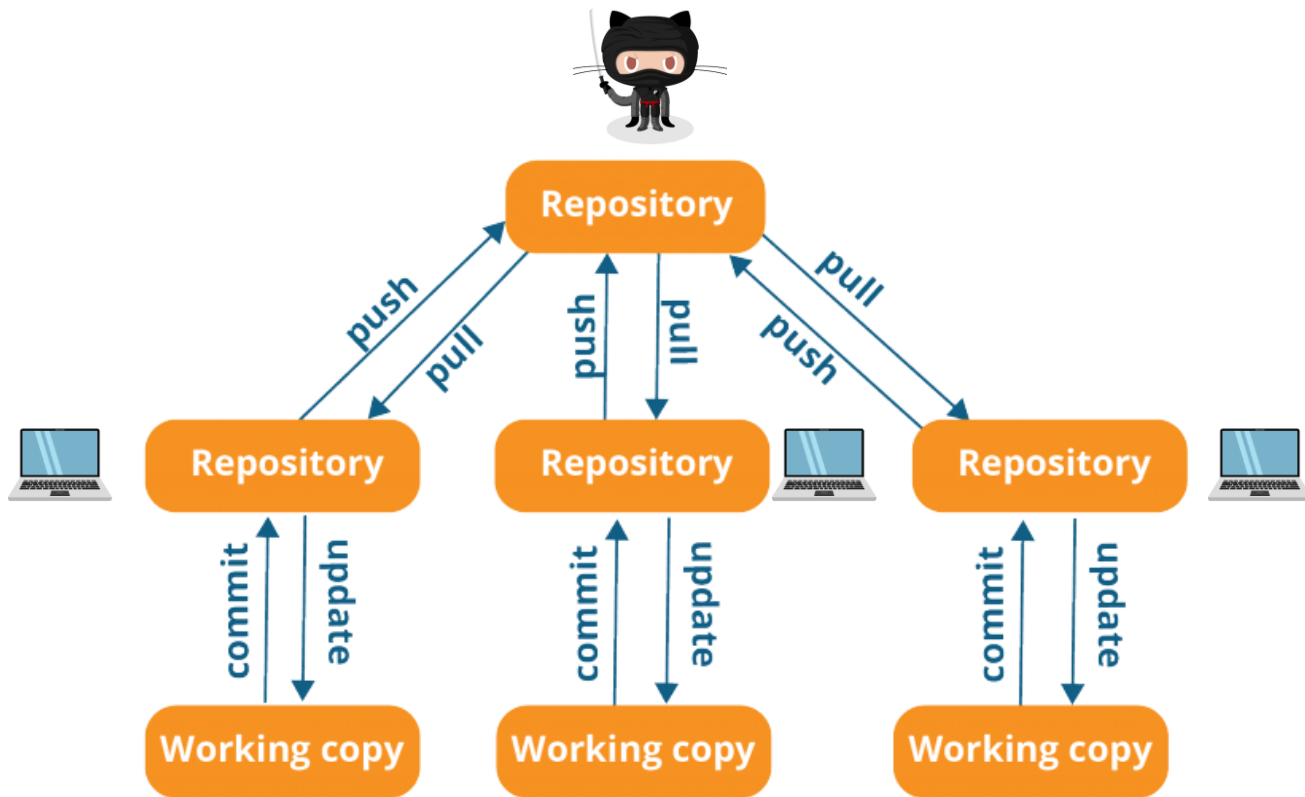
THIS IS GIT. IT TRACKS COLLABORATIVE WORK
ON PROJECTS THROUGH A BEAUTIFUL
DISTRIBUTED GRAPH THEORY TREE MODEL.

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.



Git is a *distributed* version-control system



How do you create a repository?

git init

```
[carolyn test $ ls  
file1    file2  
[carolyn test $ git init
```

```
[carolyn (master #) test $ ls -a  
.      ..      .git    file1    file2
```

Now you have a git repository!

First commit

```
[carolyn (master #) test $ git add .  
[carolyn (master +) test $ git commit -am "Initial commit"  
[master (root-commit) 9e363bf] Initial commit  
 2 files changed, 2 insertions(+)  
 create mode 100644 file1  
 create mode 100644 file2
```

working directory

staging area

repository

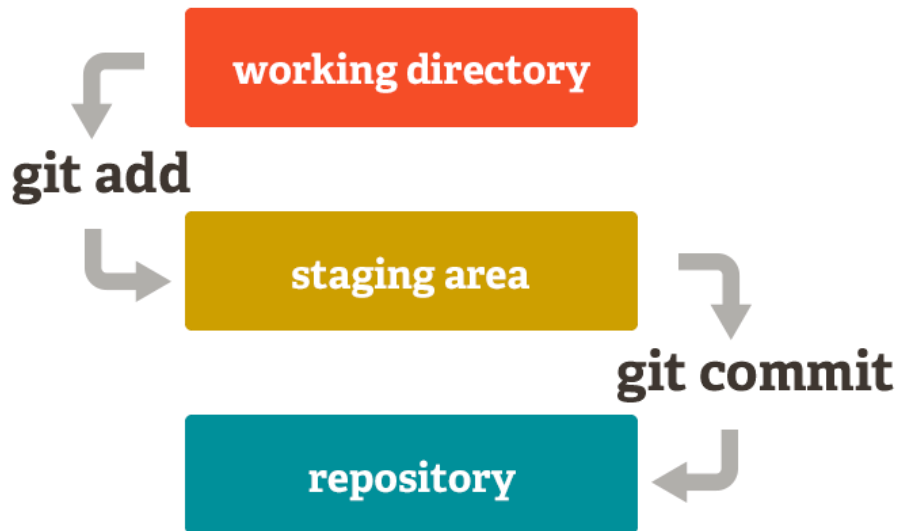
`git commit -a`



When to commit?

- After each *logical* change
- When is a commit too small?
- When is a commit too big?





`git add login.js`

`git commit login.js`

```
carolyn (login *) src $ git status
```

```
On branch login
```

```
Changes not staged for commit:
```

```
  (use "git add <file>..." to update what will be committed)
```

```
  (use "git checkout -- <file>..." to discard changes in working directory)
```

```
    modified:   components/auth/Login.js
```

```
    modified:   components/layout/Footer.js
```

```
Untracked files:
```

```
  (use "git add <file>..." to include in what will be committed)
```

```
    components/layout/StoreTitle.js
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
carolyn (login *) src $ git add components/auth/Login.js
```

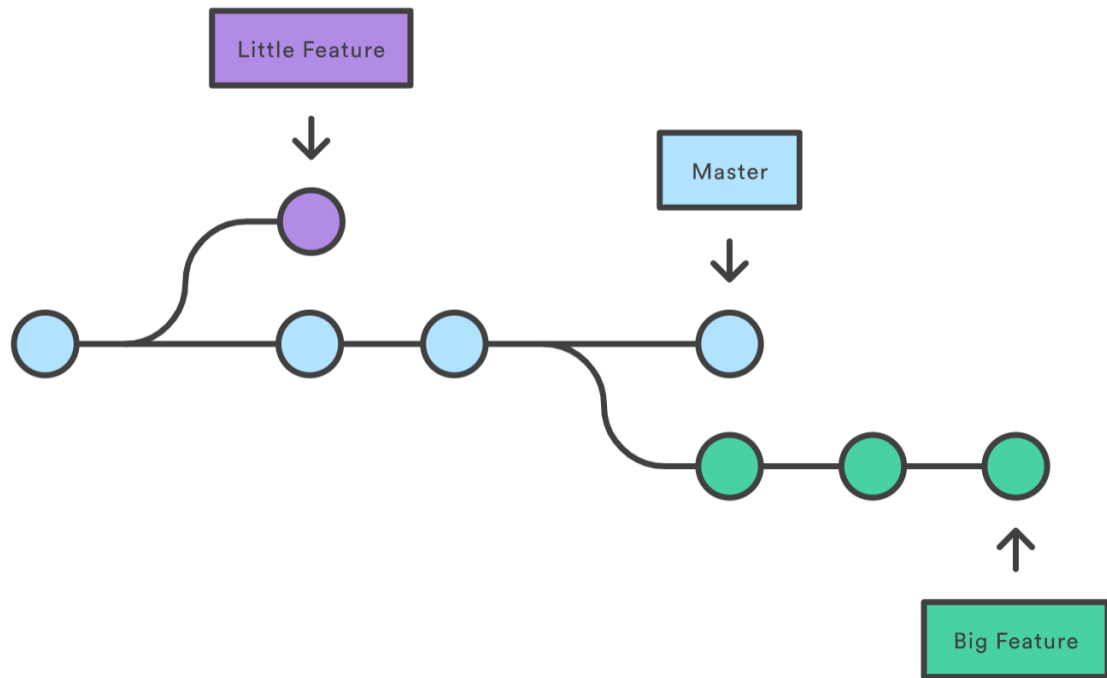
```
carolyn (login *) src $ git commit components/auth/Login.js -m "feature: Add email validation"
```

```
[login 0fcd5774] feature: Add email validation
```

```
1 file changed, 1 deletion(-)
```

```
carolyn (login *) src $ █
```

Branching



commit 2620856...

Author: Name <email@albany.edu>

Date: Sun Oct 25 20:51:58 2020 -0400

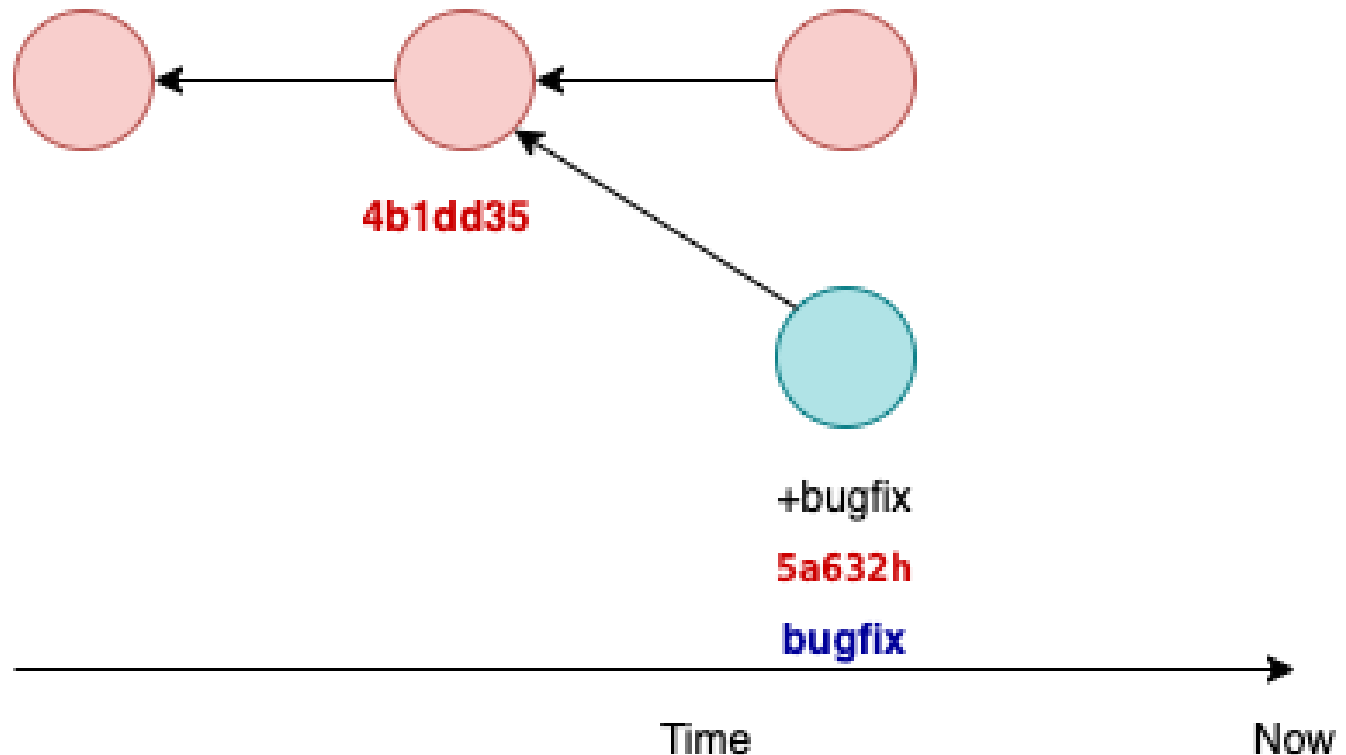
Initial commit

master

3692423

+feature

Branching &Checkout



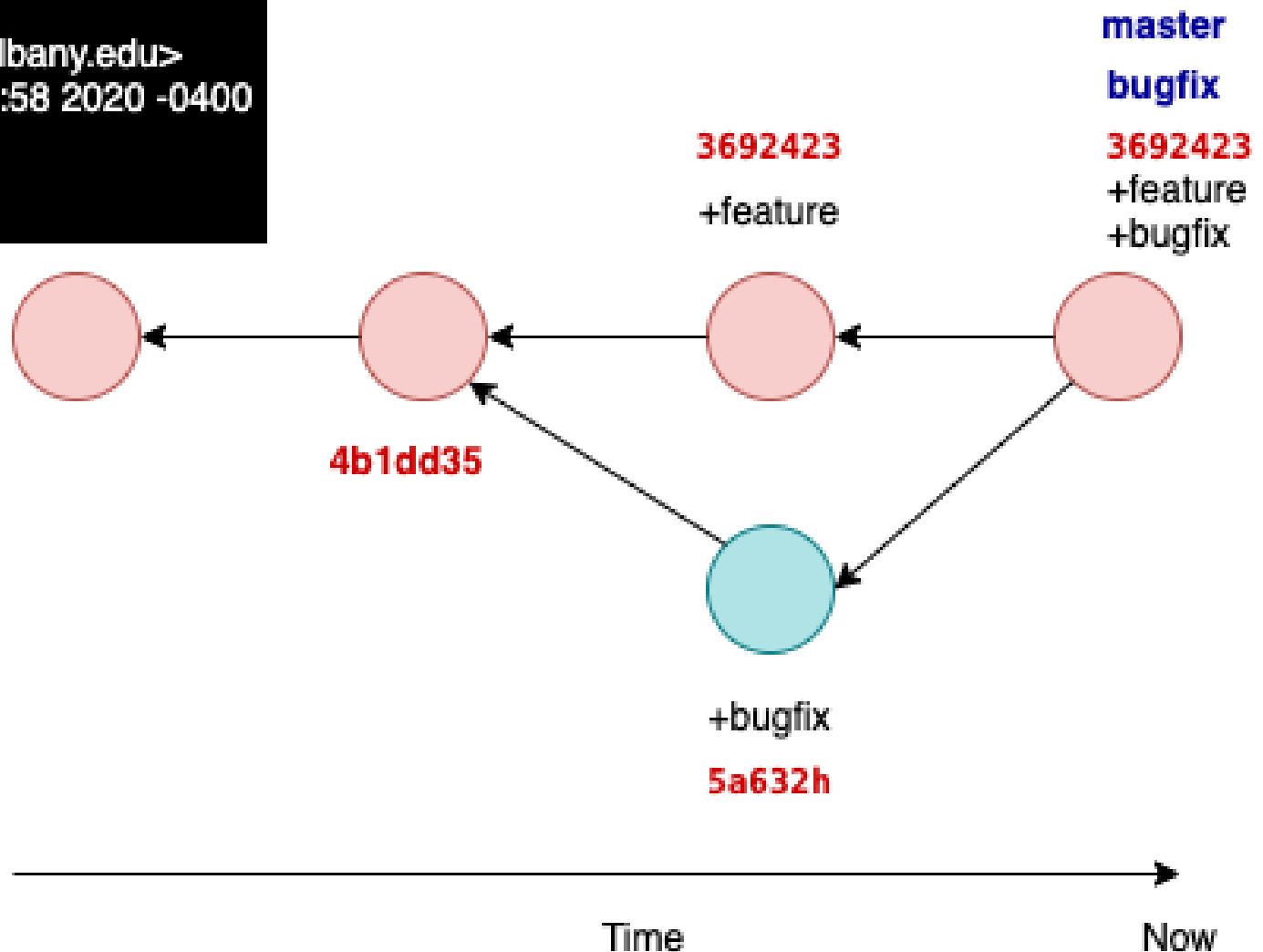
commit 2620856...

Author: Name <email@albany.edu>

Date: Sun Oct 25 20:51:58 2020 -0400

Initial commit

Branching &Checkout &Merging



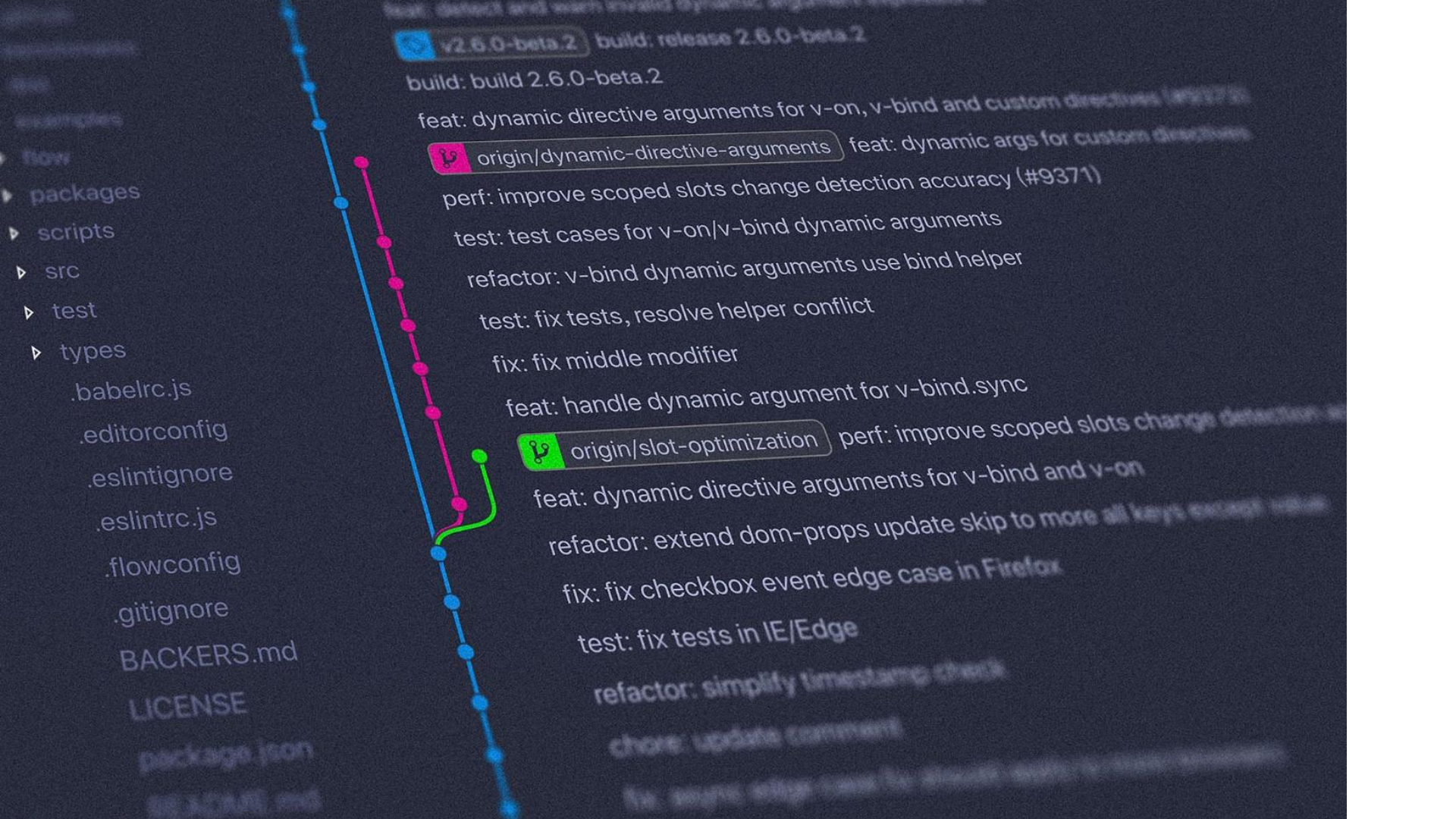
```
$ git checkout 2c6e2
```

```
Note: checking out '2c6e2'.
```

```
You are in 'detached HEAD' state.
```



Halloween is upon us!



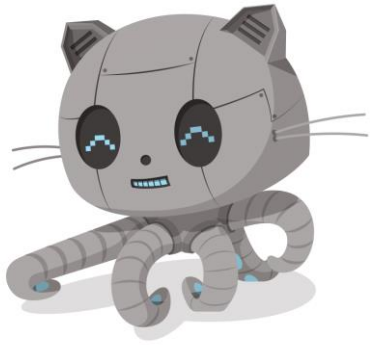
Merge conflicts





Git diff

```
[carolyn (master) demo1 $ git diff
diff --git a/hello.txt b/hello.txt
index 22decc2..4602f7a 100644
--- a/hello.txt
+++ b/hello.txt
@@ -1,1 @@
-Hello IEEE!
+Hello Computer Science Students!
```



Configure git

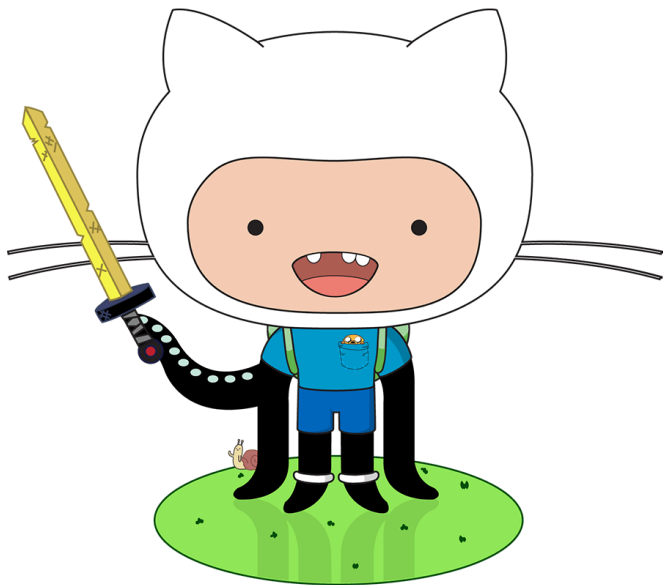
- Autocomplete commands
- Branch in command prompt
- Set up diff3



GitHub



Get started



- Add profile pic
- Make a repository
- Fork a repository



Custom profile

- Create a repository named <your-user-name>
 - The readme.md file will now be your profile!
 - Include emojis, headers, stats, etc.
-

Make your profile pop

Add stats cards

<https://github.com/anuraghazra/github-readme-stats>




Anurag Hazra's GitHub Stats

☆	Total Stars:	13.7k
🕒	Total Commits (2020):	1.1k
🔗	Total PRs:	336
💡	Total Issues:	109
📁	Contributed to:	64

A++

Fork some code

 tensorflow / tensorflow

Watch ▾8.3k

Star150k

Fork83.1k

<> Code

! Issues3.8k

🔗 Pull requests188

▶ Actions

📁 Projects1

...



tensorflow/tensorflow is licensed under the
Apache License 2.0

A permissive license whose main conditions require preservation of copyright and license notices. Contributors provide an express grant of patent rights. Licensed works, modifications, and larger works may be distributed under different terms and without source code.

Permissions

- ✓ Commercial use
- ✓ Modification
- ✓ Distribution
- ✓ Patent use
- ✓ Private use

Limitations

- ✗ Trademark use
- ✗ Liability
- ✗ Warranty

Conditions

- ℹ License and copyright notice
- ℹ State changes



Contribute!

- Tons of open source projects
- Look for the tag “good first issue”
- Pull request



Add Github Repositories with useful React resources and tools #5

New Issue

 Open muchirijane opened this issue 24 days ago · 2 comments



muchirijane commented 24 days ago

Owner



Is your feature request related to a problem? Please describe.

There is no React JS section and resources

Describe the solution you'd like

- Add a Rect JS section, you can check the format in the readme file.
- Then add a few Github repositories with awesome and useful React JS resources and tools
- Format [title] (URL) - Description of what the Github repository entails.

Describe alternatives you've considered

There are no alternatives

Additional context

N/A

Assignees

No one assigned

Labels

Hacktoberfest2020

documentation

enhancement

good first issue

hacktoberfest

Projects

None yet

Milestone

No milestone

Linked pull requests

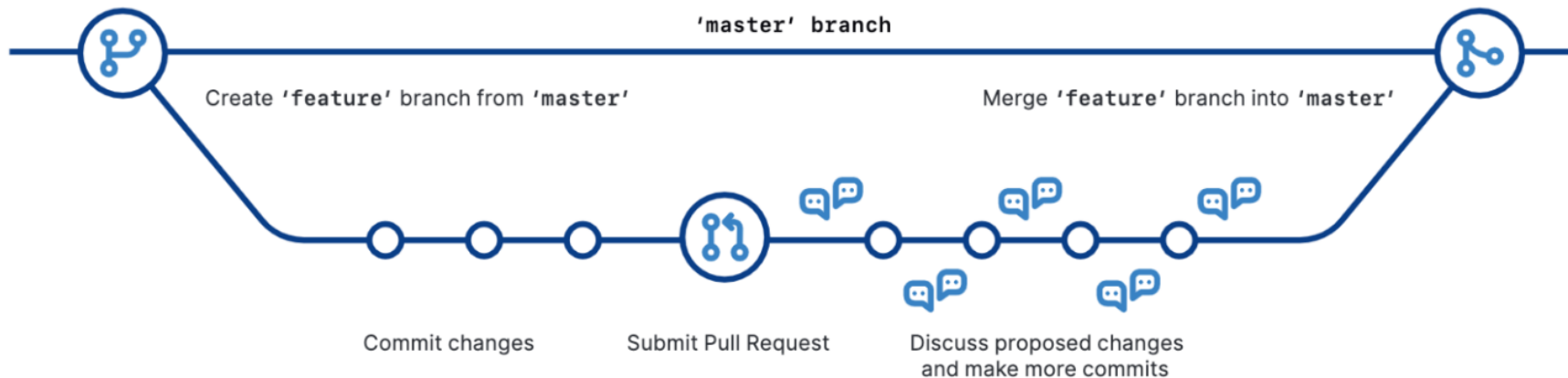
Successfully merging a pull request may close this issue.



muchirijane added documentation enhancement good first issue hacktoberfest Hacktoberfest2020 labels

24 days ago

GitHub Flow



Get the Student Developer Pack

<https://education.github.com/pack/offers>

- Free github pro
- Other software deals, often free





UALbany IEEE Student Branch

The UAlbany Institute of Electrical and Electronics Engineers (IEEE) Student Branch is the foremost organization for students in tech related fields at UAlbany

<https://www.albany.edu/~jo48176...> ieee@albany.edu

Repositories 6 Packages People 9 Teams Projects Settings

Find a repository...

Type: All ▾

Language: All ▾

Customize pins

New

UALbany-IEEE-Website

The code for the official website of the UAlbany IEEE for the 2020-2021 School Year. Makes extensive use of 3JS technology.

[javascript](#) [css](#) [html](#) [3js](#)

JavaScript 0 1 0 0 Updated 3 days ago

Workshops-Fall-2020

A collection of our workshops from Fall 2020

1 0 0 0 Updated 5 days ago

Fall-2020-Workshop-7-App

Java 0 0 0 0 Updated 6 days ago

Top languages

JavaScript Java TeX

People

9 >



Invite someone

Image Sources

<https://git-scm.com/about/staging-area>

<https://www.edureka.co/blog/what-is-git/>

<https://github.com/github/training-kit/blob/master/downloads/github-git-cheat-sheet.pdf>

<https://app.speckbit.com/roadmap/git-and-github/2/4>

