Intro to Git & Github

GitHub

Code sharing platform

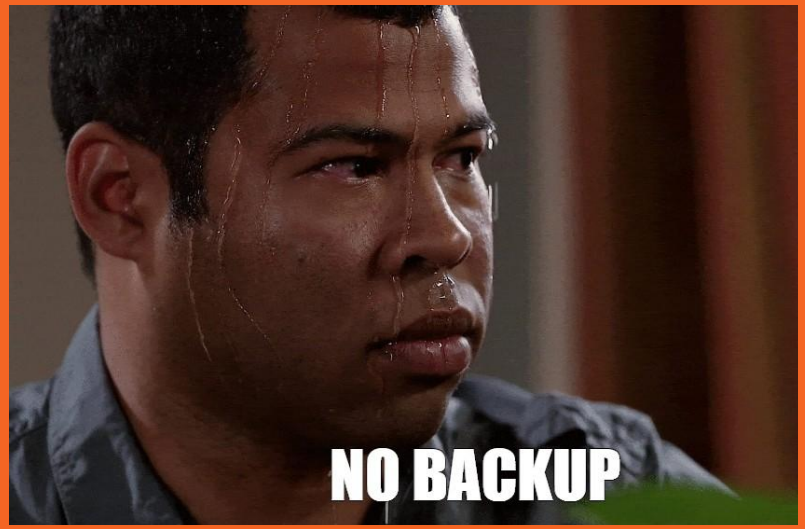
+

git

Version control system

Why version control?

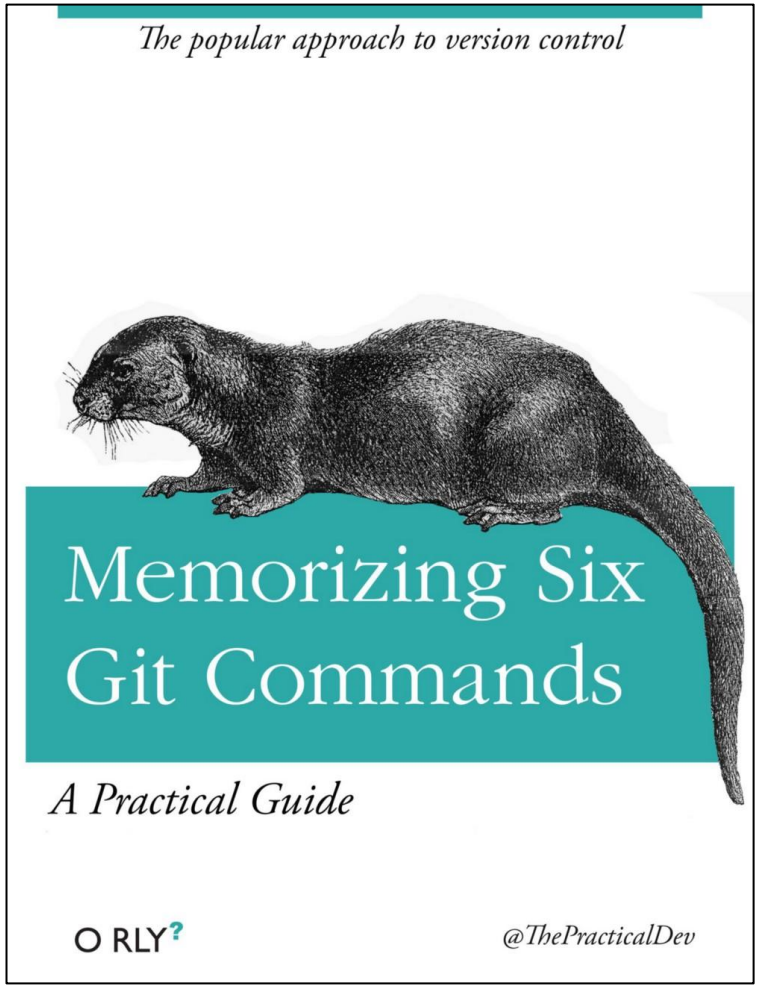
- Backups
- Experimentation
- Collaboration



```
[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

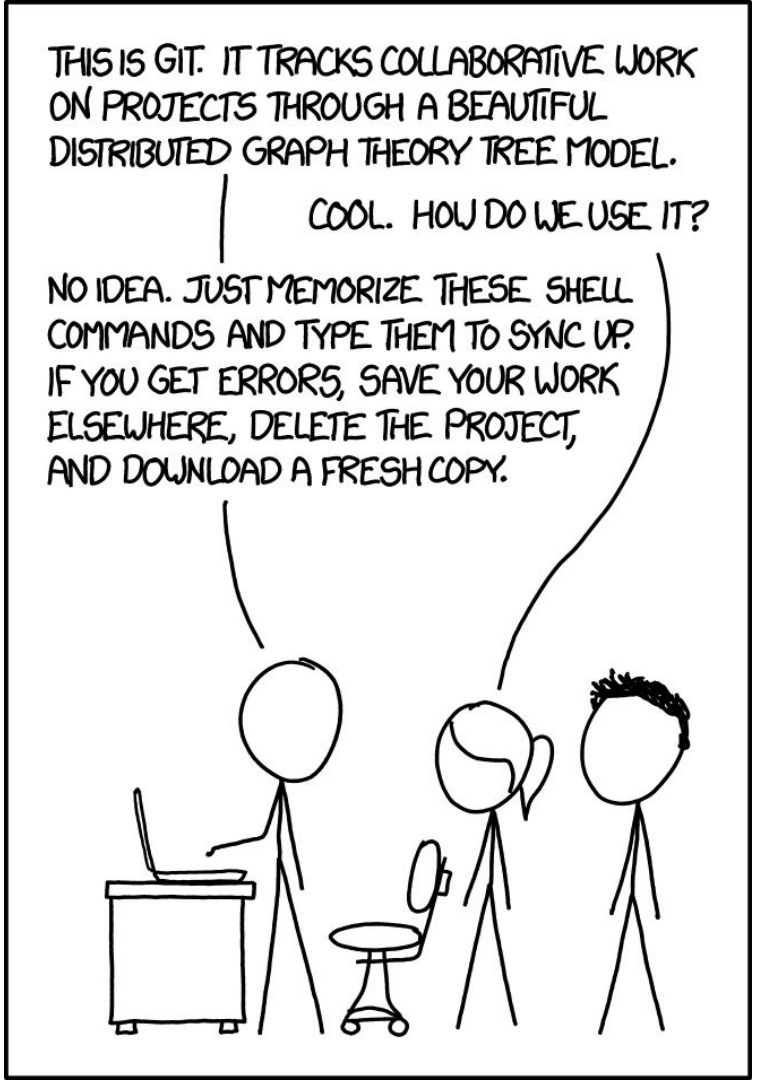
- Snapshots of your code
- ***You*** decide when to take the snapshot



- 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


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.

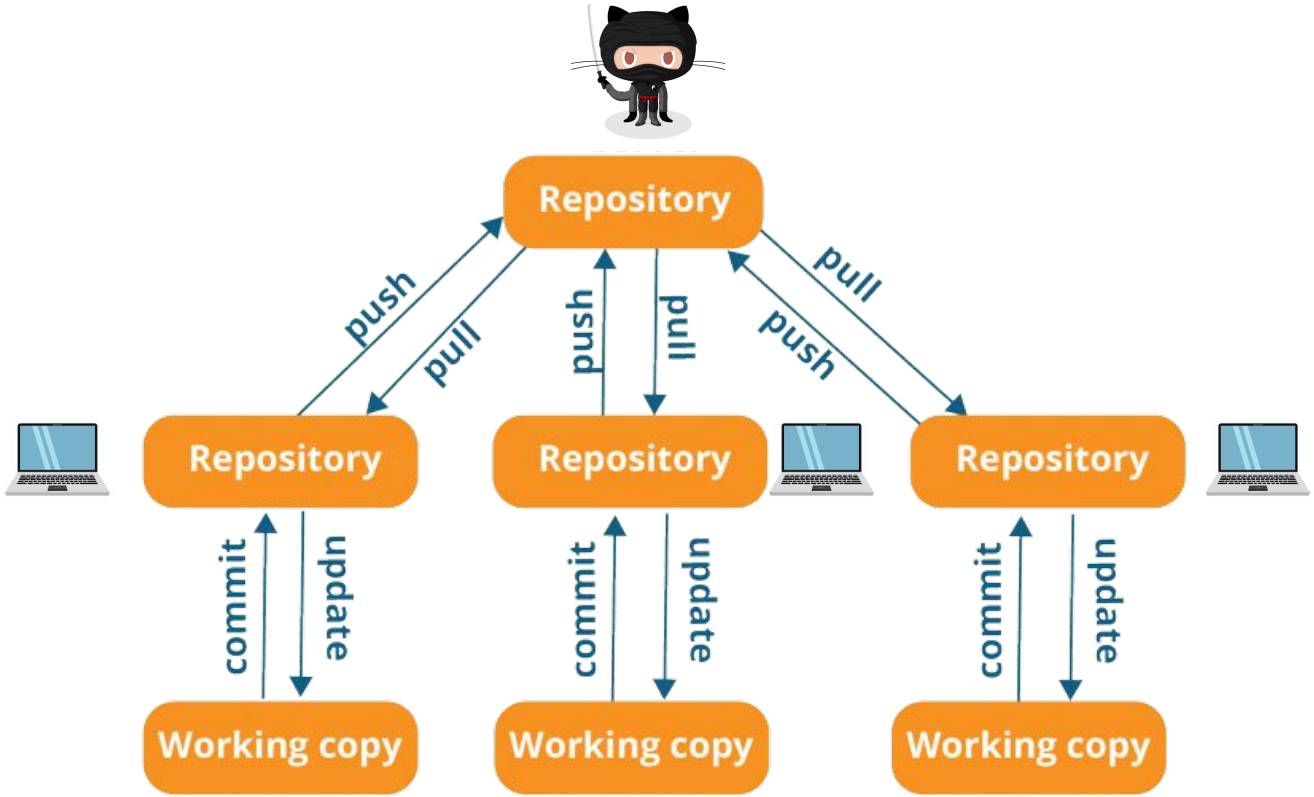
Pros

- Powerful
- Versatile
- Abstract

Cons

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

Git is a *distributed* version-control system



How do you create a repository?

git init

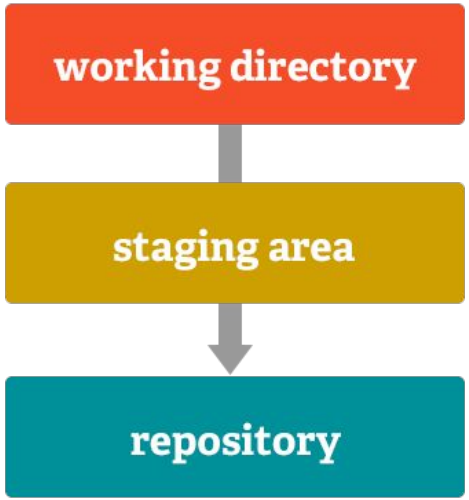
```
[carolyn test $ ls
 file1   file2
[carolyn test $ git init
```

```
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
```

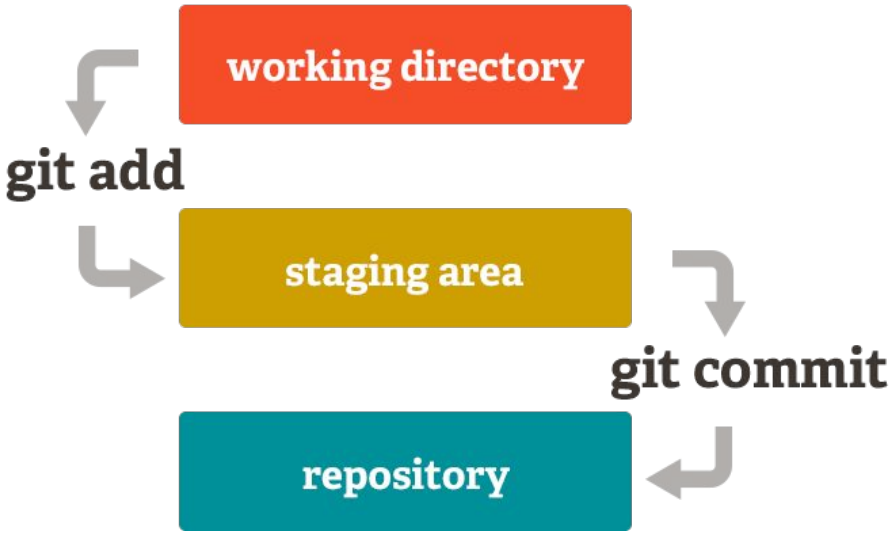

working directory
staging area
repository

git commit -a

GIT ADD
ALL THE FILES

When to commit?

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

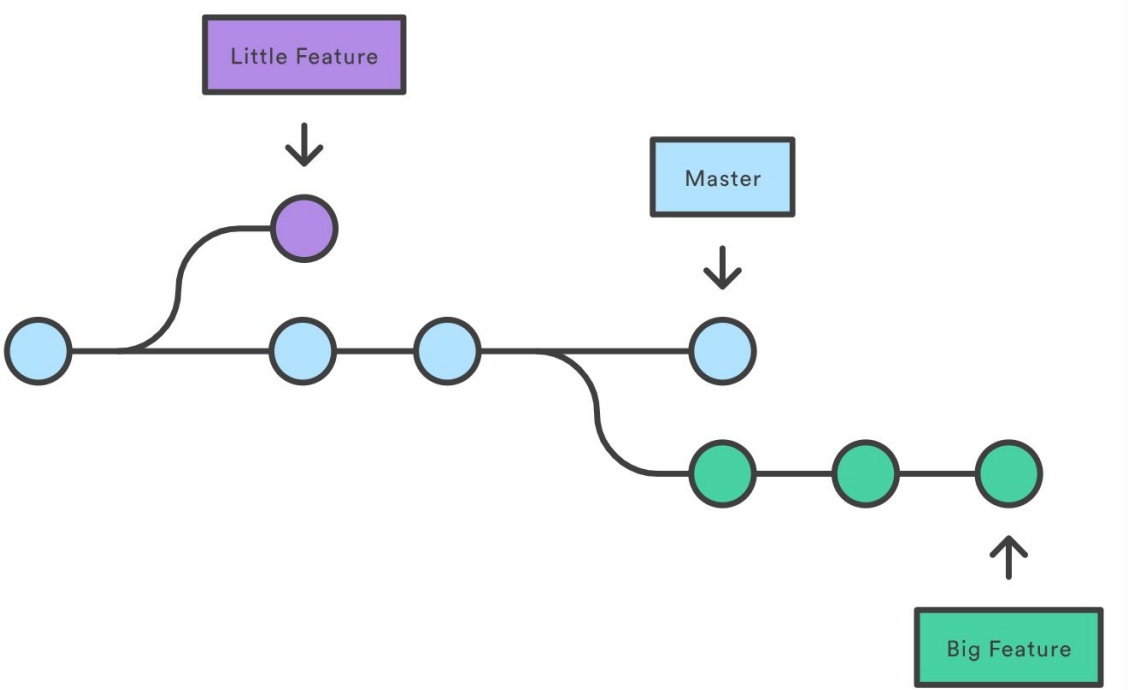


git add login.js

git add login.css

git commit

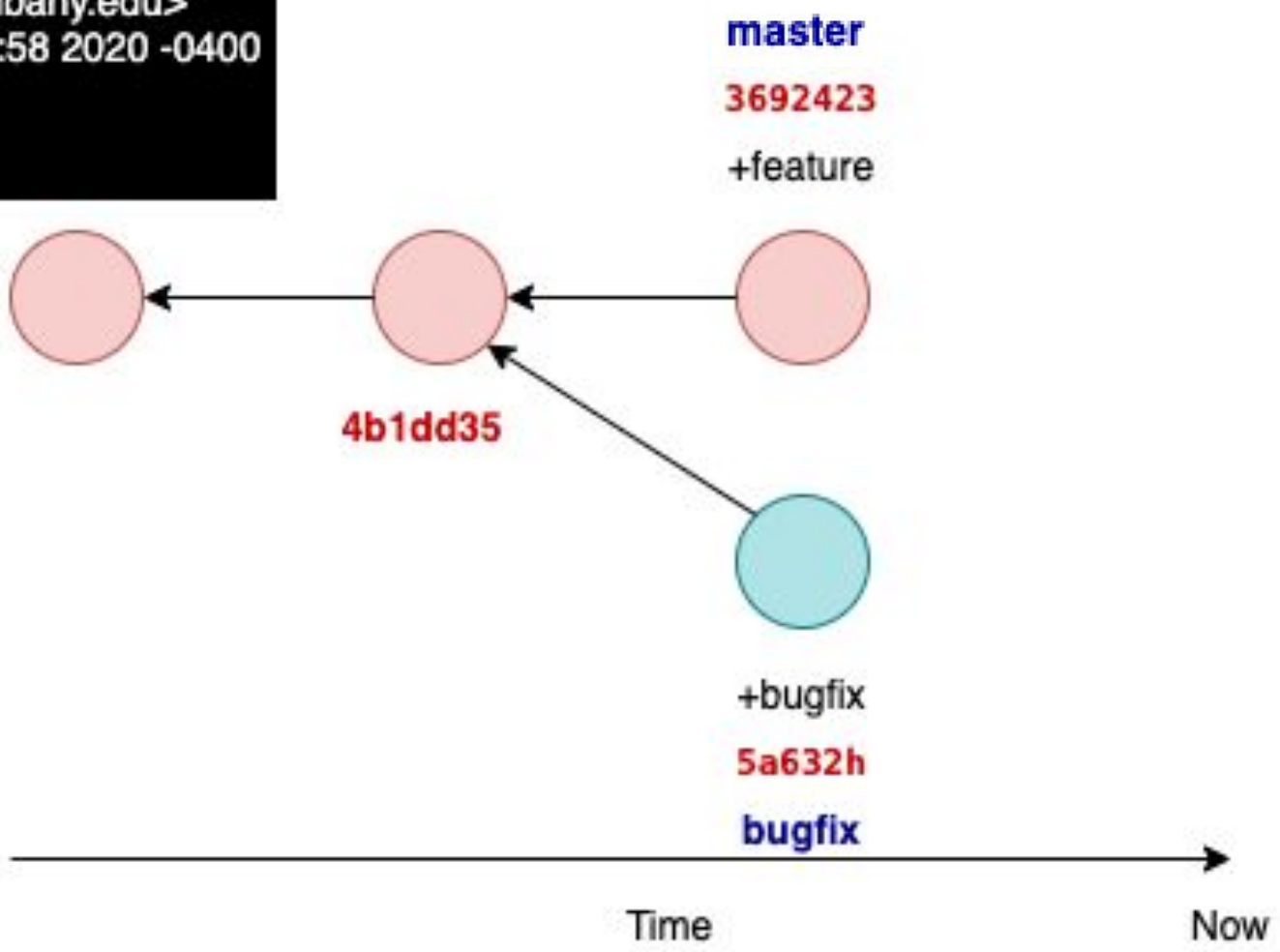
Branching



```
commit 2620856...
Author: Name <email@albany.edu>
Date:   Sun Oct 25 20:51:58 2020 -0400

    Initial commit
```

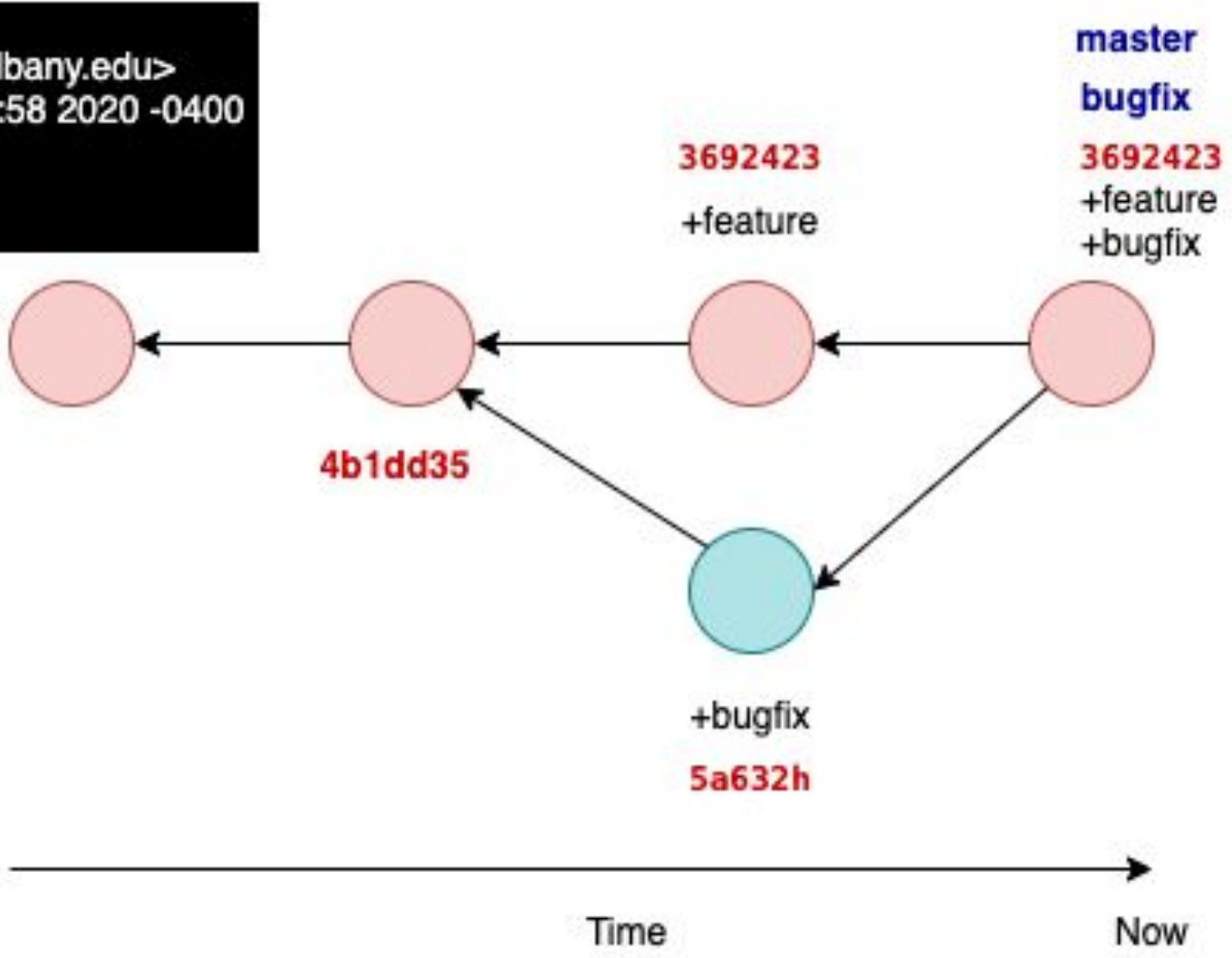
Branching &Checkout



```
commit 2620856...
Author: Name <email@albany.edu>
Date:   Sun Oct 25 20:51:58 2020 -0400

    Initial commit
```

Branching &Checkout &Merging



Halloween is upon us!

Merge conflicts

resolve a conflict

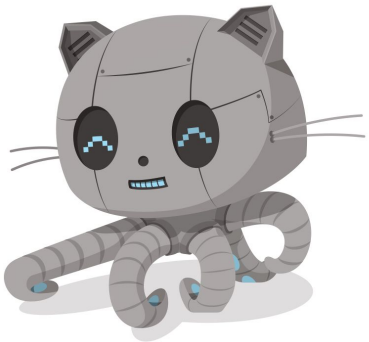
```
<<<<<<< HEAD
GreenMessage.send(include_signature: true)
=======
BlueMessage.send(include_signature: false)
>>>>>>> merged-branch
```

resolve a conflict diff3 style

```
<<<<<<< HEAD
GreenMessage.send(include_signature: true)
||||||| merged common ancestor
BlueMessage.send(include_signature: true)
=======
BlueMessage.send(include_signature: false)
>>>>>>> merged-branch
```

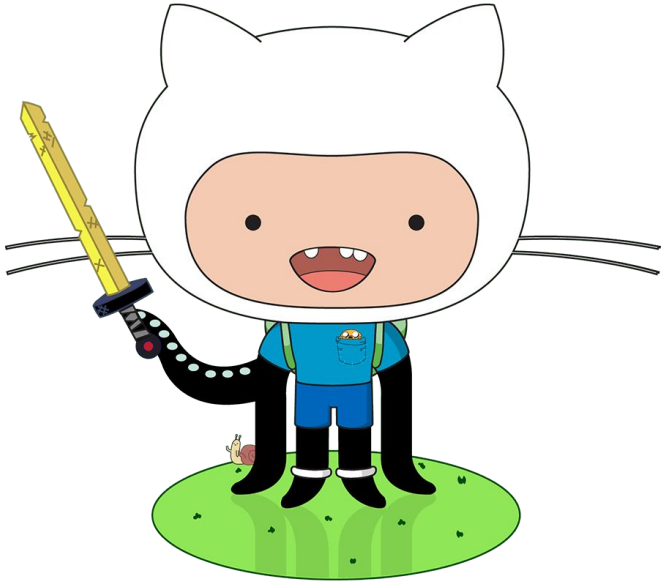
Configure git

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



GitHub

Get started



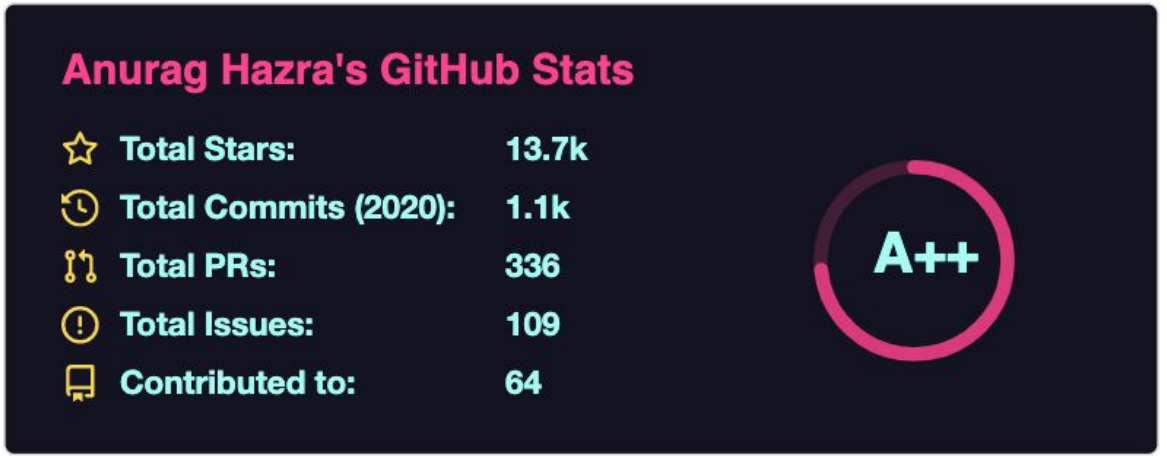
- Add profile pic
- Make a repository
- Fork a repository

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



Fork some code

tensorflow / tensorflow

Watch 8.3k | Star 150k | Fork 83.1k

<> Code | Issues 3.8k | Pull requests 188 | Actions | Projects 1 | ...

tensorflow/tensorflow is licensed under the
Apache License 2.0

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- ✗ Liability
- ✗ Warranty

Conditions
- ⓘ License and copyright notice
- ⓘ 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

muchirijane added documentation enhancement good first issue hacktoberfest Hacktoberfest2020 labels 24 days ago

Assignees
No one assigned

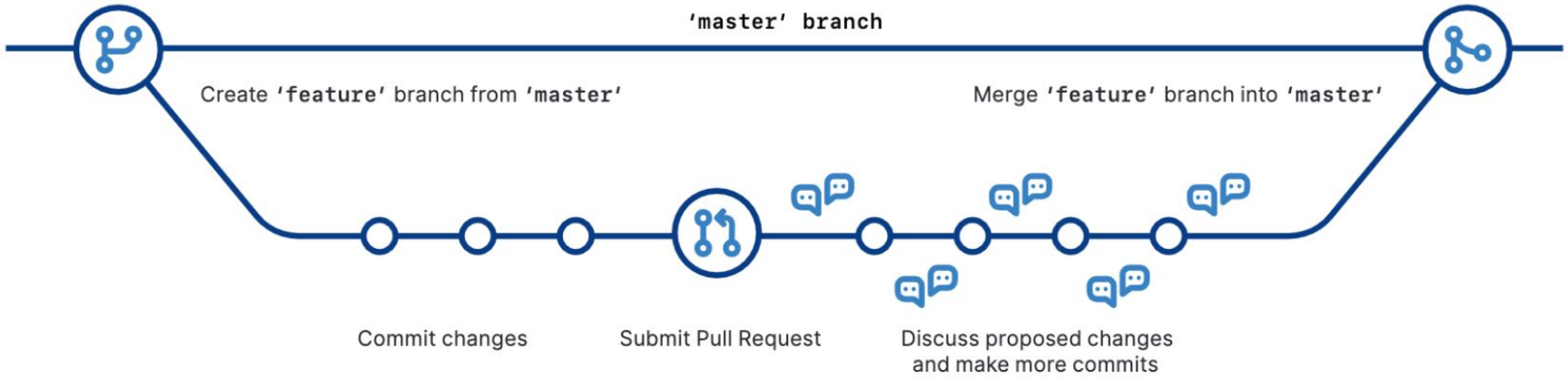
Labels
Hacktoberfest2020 documentation enhancement good first issue hacktoberfest

Projects
None yet

Milestone
No milestone

Linked pull requests
Successfully merging a pull request may close this issue.

GitHub Flow


'master' branch
Create 'feature' branch from 'master'
Merge 'feature' branch into 'master'
Commit changes
Submit Pull Request
Discuss proposed changes and make more commits

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

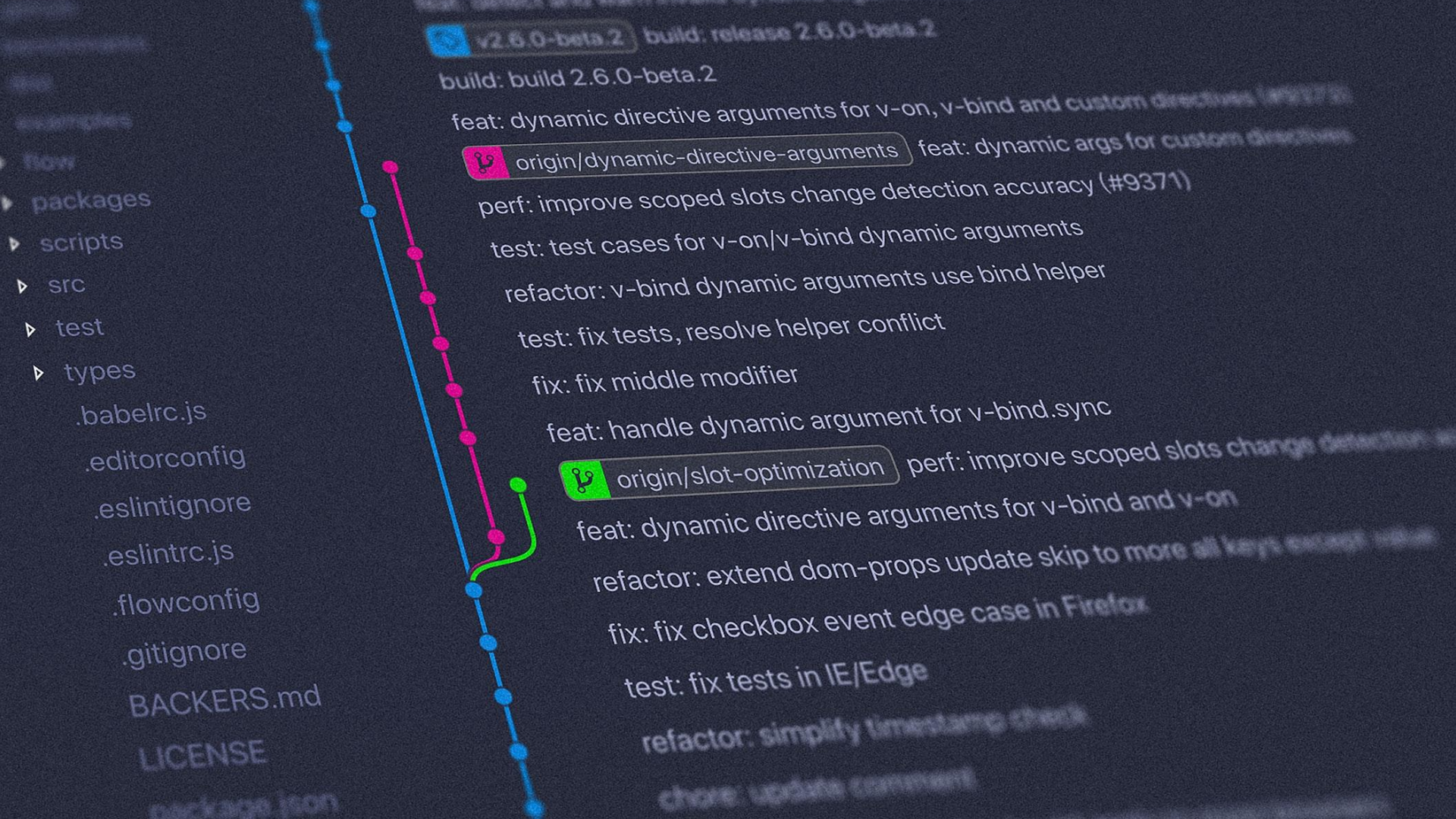
https://git-scm.com/about/staging-area

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

https://blog.nilbus.com/take-the-pain-out-of-git-conflict-resolution-use-diff3/


v2.6.0-beta.2
build: release 2.6.0-beta.2
build: build 2.6.0-beta.2
feat: dynamic directive arguments for v-on, v-bind and custom directives
origin/dynamic-directive-arguments
feat: dynamic args for custom directives
perf: improve scoped slots change detection accuracy (#9371)
test: test cases for v-on/v-bind dynamic arguments
refactor: v-bind dynamic arguments use bind helper
test: fix tests, resolve helper conflict
fix: fix middle modifier
feat: handle dynamic argument for v-bind.sync
origin/slot-optimization
perf: improve scoped slots change detection
feat: dynamic directive arguments for v-bind and v-on
refactor: extend dom-props update skip to more all keys except value
fix: fix checkbox event edge case in Firefox
test: fix tests in IE/Edge
refactor: simplify timestamp check
chore: update comment
flow
packages
scripts
src
test
types
.babelrc.js
.editorconfig
.eslintignore
.eslintrc.js
.flowconfig
.gitignore
BACKERS.md
LICENSE
package.json