

**Git** & **GitHub**  
**secrets**



```
git branch -D local-branch  
git push origin :local-branch
```

Much like

**James Cameron's *Avatar*<sup>TM</sup>,**

Git doesn't make any

goddamn sense

This talk throws  
**a ton of stuff** at you

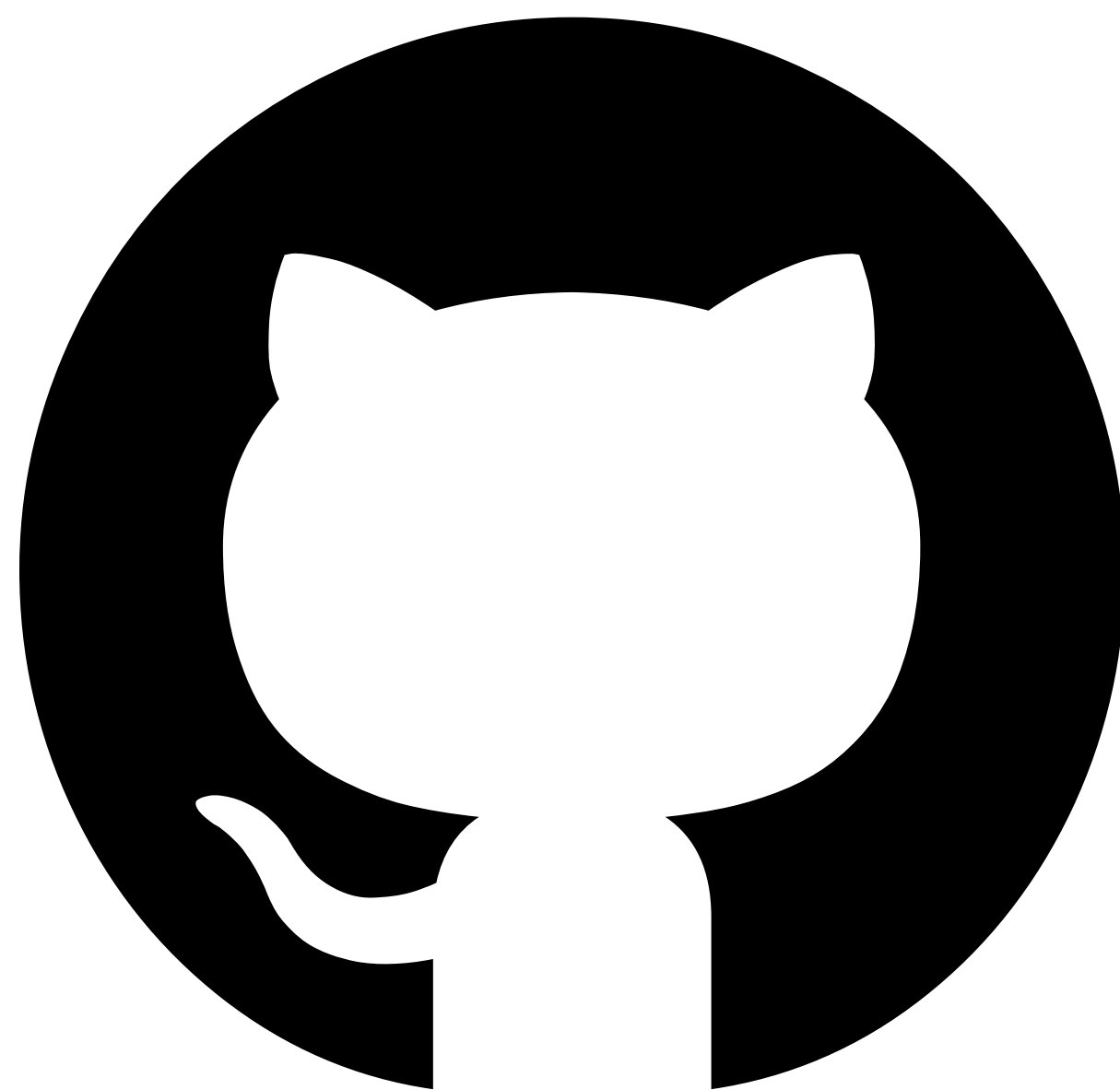
This talk throws  
**a ton of stuff** at you

(Not unlike **James Cameron's *Avatar*<sup>TM</sup>**, btw)

Learn the bits that make **you**  
more productive







**Git** & **GitHub**  
**secrets**

**merge strategies**

**merge** strategies

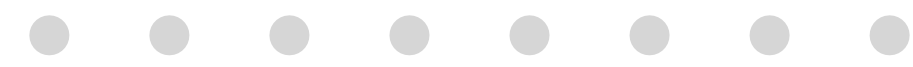
.....

**strategy defaults:**

one head: **recursive**

multiple heads: **octopus**

# merge strategies



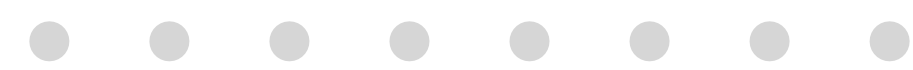
```
git merge master -s strategy
```

**merge** strategies

.....

`git merge master -s ours`

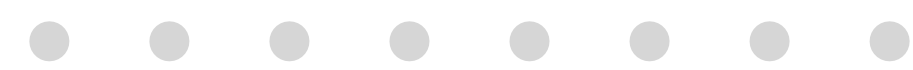
# merge strategies



git merge master **-s ours**

“Give me master, but my final state  
**should match my current branch**”

# merge strategies



git merge master **-s ours**

Great for when **your long-running  
branch will supersede** master



**merge** strategies

.....

git merge master \

**-s recursive**

merge strategies

.....

git merge master \

**-s recursive -X patience**

Better line matching for logical groups

# merge strategies — patience

.....

{

**:a => :b**

}

# merge strategies — patience

.....

{

**:a => :b**

}

{

**:c => :d**

}

# merge strategies — patience

.....

{

  :a => :b

+}

+

+{

  :c => :d

}

# merge strategies — patience

.....

{

**:a => :b**

}

+{

**+ :c => :d**

+}

merge strategies

.....

git merge master \

**-s recursive -X patience**

Can also set as a global option

# merge strategies

.....

› **man git-merge**

# look at “Merge Strategies”



The  
**second-order-diff**  
trick

the **second-order-diff** trick

.....

**Tom Moertel**

( [cl.ly/QNaG](https://cl.ly/QNaG) )

the **second-order-diff** trick

.....

**Goal:** transform strings  
with a regex in project

the **second-order-diff** trick

.....

**Approach:** re-run **git diff**  
and **git reset** until the regex  
is correct

the **second-order-diff** trick

.....

**Problem:** it sucks to  
review the diff each time

the **second-order-diff** trick

.....

**Solution:** stash, then  
diff against **stash{0}**

# the **second-order-diff** trick

.....

› **git status**  
# clean

the **second-order-diff** trick

.....

> **./run-regex-script**



the **second-order-diff** trick

.....

› **git diff**

# review and check output

the **second-order-diff** trick

.....

› **git stash**

# stash your reviewed diff

the **second-order-diff** trick

.....

> **./run-regex-script**

the **second-order-diff** trick

.....

> **git diff stash{0}**  
# only incremental changes

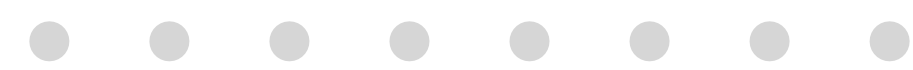
the **second-order-diff** trick

.....

Find and replace in projects  
without **worrying**

emoji diffs

emoji diffs



Yeah this is  
important

emoji diffs

.....

Git diffs

**unicode poorly:**



# emoji diffs

.....

@@ -1 +1 @@

-MINDLESS COUPLE ABOUT TO BEHEAD CHILD

+<U+1F46A>

emoji diffs

.....

Git uses **less**  
as its pager

emoji diffs

.....


git --no-pager diff

# emoji diffs

.....

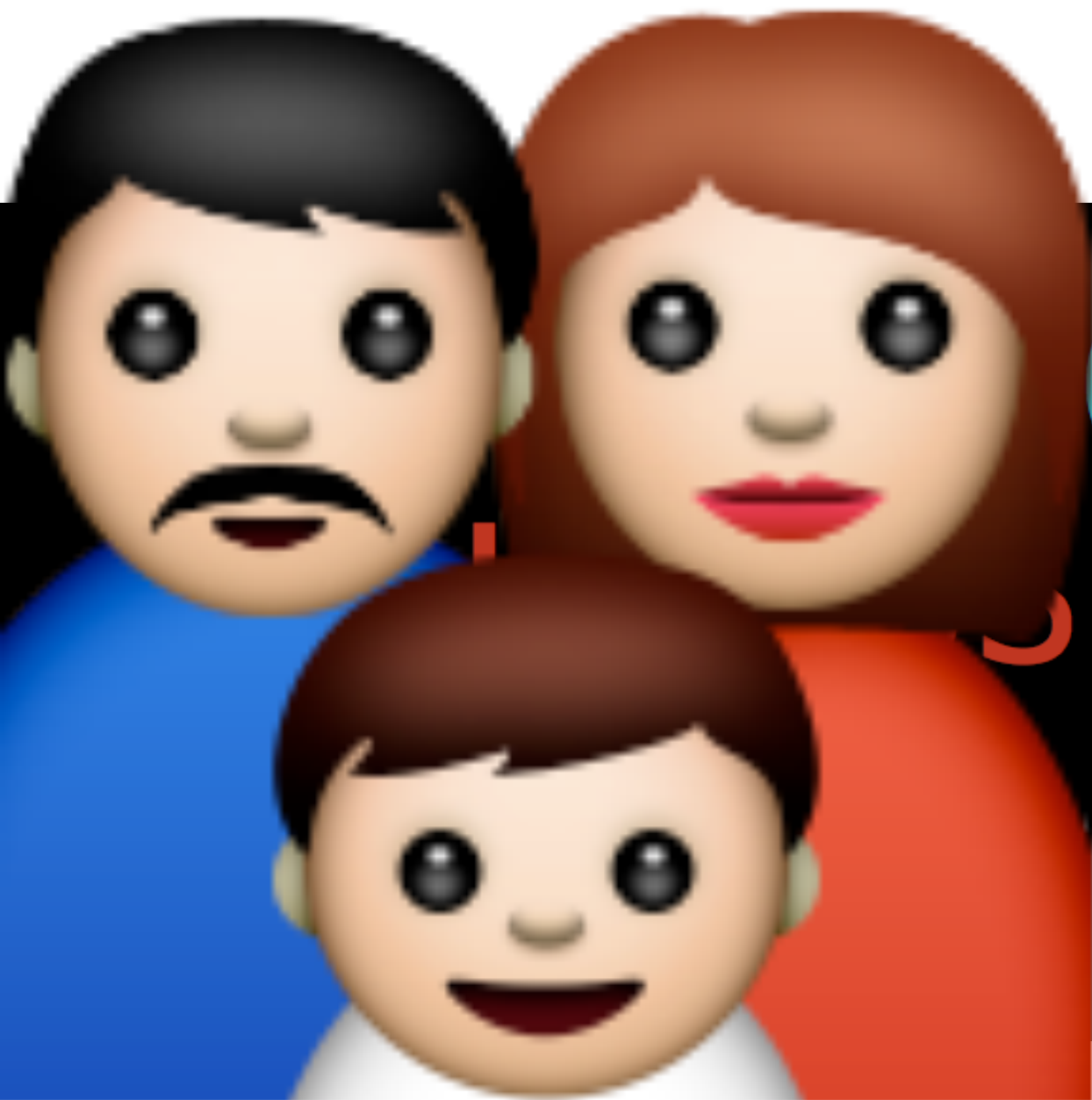
@@ -1 +1 @@

-MINDLESS COUPLE ABOUT TO BEHEAD CHILD

+

# emoji diffs

.....

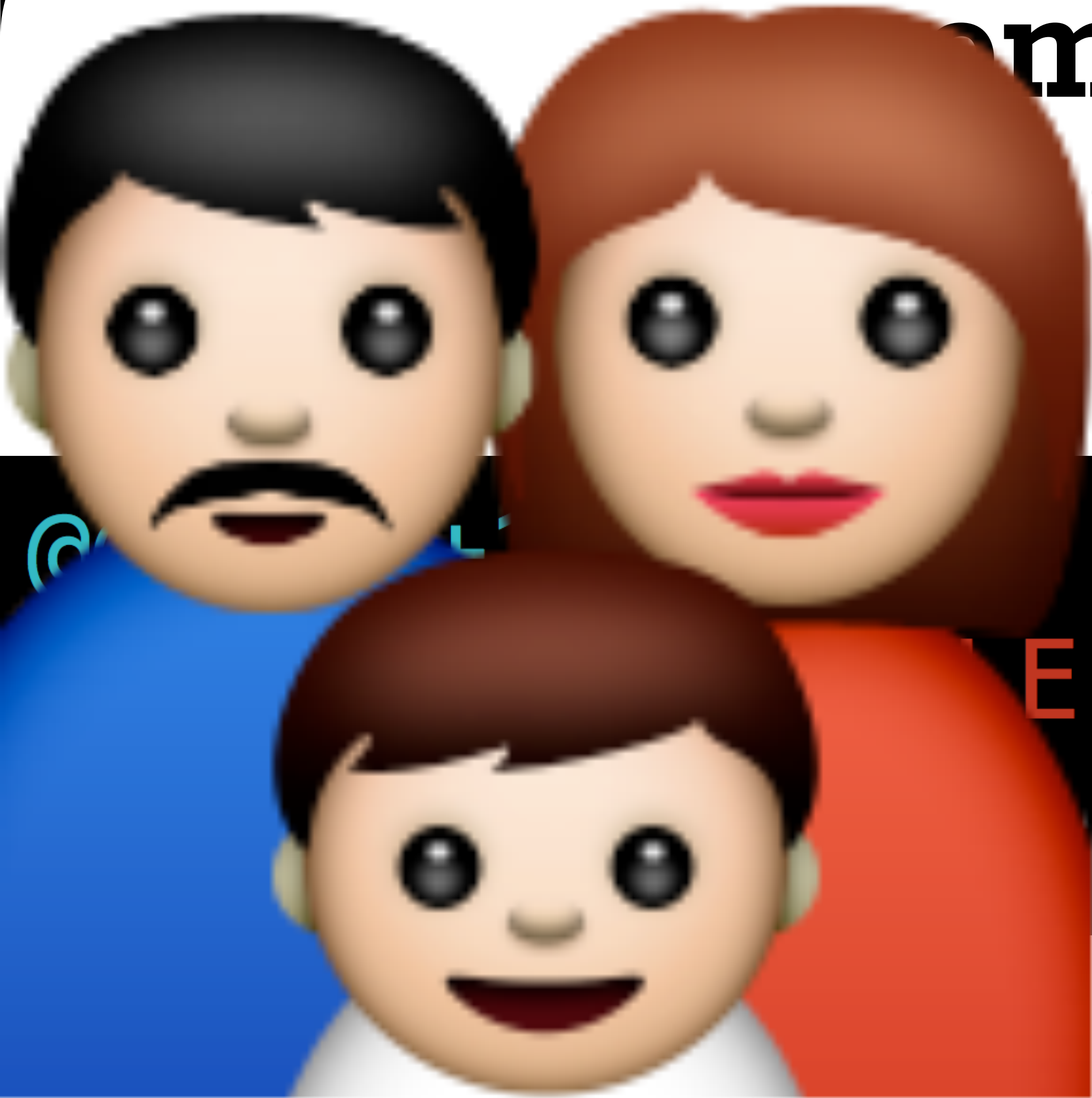


@@

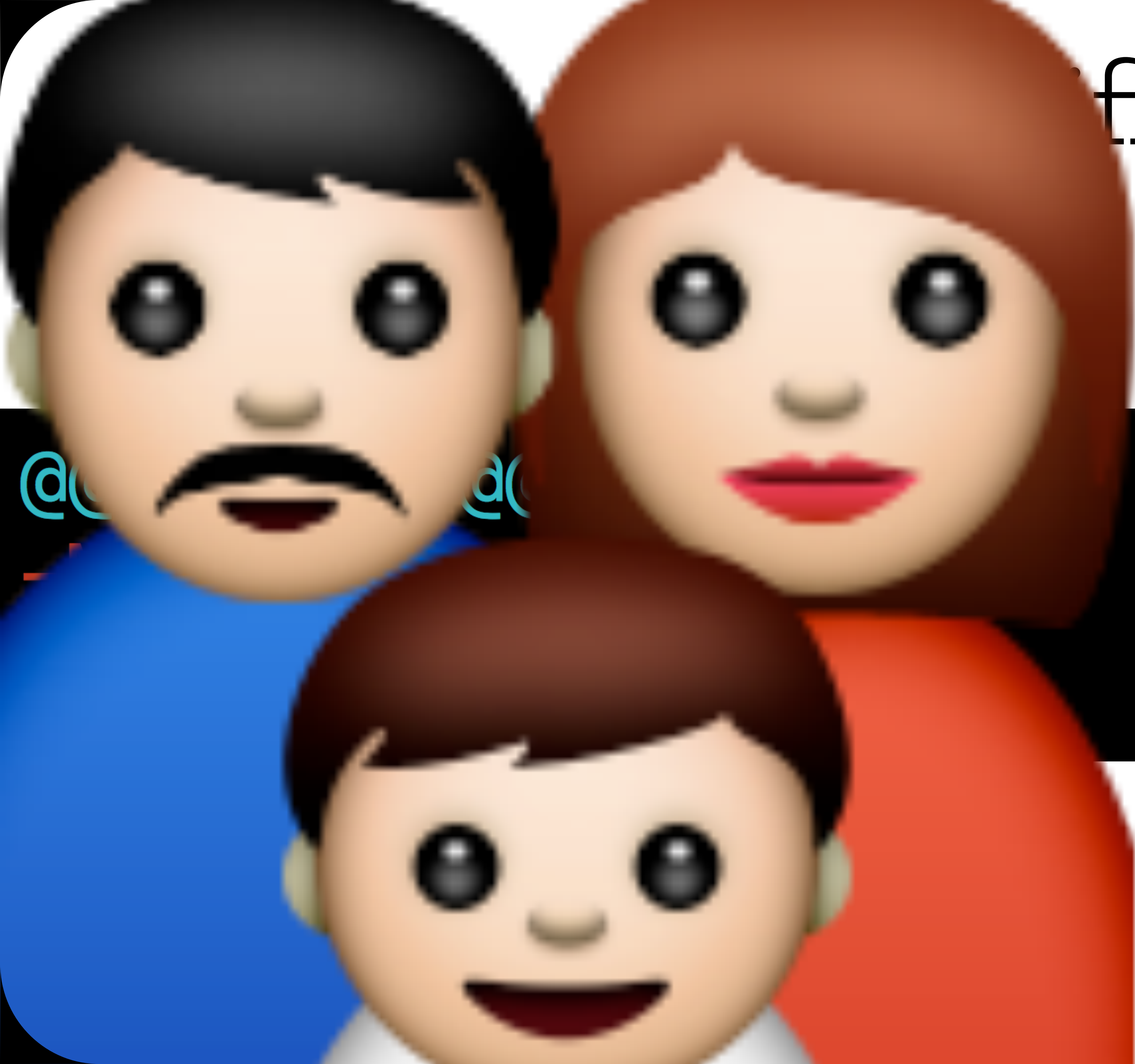
COUPLE ABOUT TO BEHEAD CHILD

# emoji diffs

.....



BE ABOUT TO BEHEAD CHILD



ffs

TO BEHEAD CHILD

git **strip**space



git **strip**space

.....

Fixes horrible coworkers  
and contributors

git **strip space**

.....

Strips trailing whitespace,  
collapses newlines,  
adds a final newline

`git strip space`

.....

`git strip space < file`

`git stripSPACE`

.....

`echo "hi \n" | git stripSPACE`

```
git strip space
```

.....

Run this in **your editor**  
after file saves

```
git diff --check
```

```
git diff --check
```

.....

Fixes horrible you.

`git diff --check`

.....

`run.sh:1: trailing whitespace.`

`+echo "hi"`





`git diff --check`

.....

run.sh:1: space before tab in indent.

+  ls -la

```
git diff ---cached
```

git diff --cached

.....

**git diff only diffs  
unstaged changes**

```
git diff --cached
```

.....

Shows **staged**  
**(but uncommitted)**  
changes

**HOT, HOT,  
TRIVIA  
BREAK**

**Which of these  
commit messages  
actually happened  
on GitHub?**

- 1. A reasoned argument,  
citing sources**
- 2. A 500MB db dump**

1. **A reasoned argument,  
citing sources**
2. **A 500MB db dump**



**“Why is my  
repository slow?”**

```
git merge --abort
```

```
git merge --abort
```

.....

**Aborts** a conflicted merge

`git merge --abort`

.....

**Resets your tree**

```
git merge -m "message"
```

git merge -m

.....

Like **commit -m** but  
populates the merge  
commit

```
git merge ---no-commit
```

```
git merge --no-commit
```

.....

Merges without a  
**commit message**



```
git status --ignored
```

```
git status --ignored
```

.....

Shows the status of  
everything you're  
**ignoring**

**--assume-unchanged**

**--assume-unchanged**

.....

Temporarily  
**ignore** a file

**--assume-unchanged**

.....

git update-index \

**--assume-unchanged** \

path\_to\_file

**--assume-unchanged**

.....

git update-index \

**--no-assume-unchanged** \

path\_to\_file

proper **messages**

proper **messages**

.....

Linus has thoughts on  
**your commit messages**



proper **messages**

.....

**git commit -m “fixes shit”**

proper **messages**

.....

**git commit -m “fixes shit”**  
is not what he had in mind

proper **messages**



*A* **good commit** has:

proper **messages**

• • • • •

**Short summary (title)**

proper **messages**

.....

Short summary (title)

< 50c

proper **messages**

.....

Short summary (title)

< 50c

A longer description of  
the change follows.

proper **messages**

.....

**Short summary (title)**

**< 50c**

A longer description of  
the change follows.

**wrap at 72c**

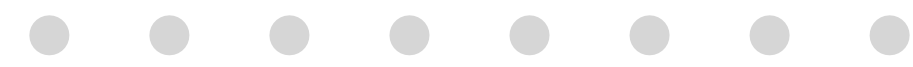
# proper messages



```
 yay a commit message look at how cool i am with my commit message let me talk a bunch because i think i deserve it
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch v3
# You are currently editing a commit while rebasing branch 'master' on '4628474'.
#   (use "git commit --amend" to amend the current commit)
#   (use "git rebase --continue" once you are satisfied with your changes)
#
# Changes to be committed:
#   (use "git reset HEAD <file>..." to unstage)
```

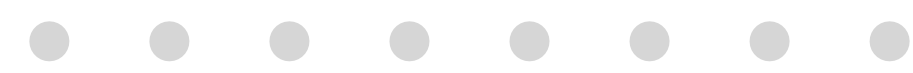


proper **messages**



git-commit **helps you**  
write perfect messages

# proper messages



Just keep typing until you notice your text changes colors

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch v3
# You are currently editing a commit while rebasing branch 'master' on
#   (use "git commit --amend" to amend the current commit)
#   (use "git rebase --continue" once you are satisfied with your chang
#
```

# proper messages

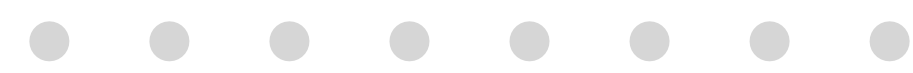
.....

50c

Just keep typing until you notice your text changes colors

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch v3
# You are currently editing a commit while rebasing branch 'master' on
#   (use "git commit --amend" to amend the current commit)
#   (use "git rebase --continue" once you are satisfied with your chang
#
```

# proper messages



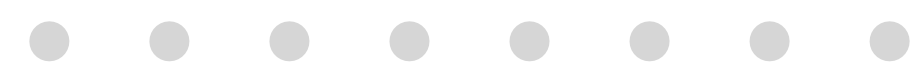
Just keep typing until you notice your text changes colors

From this point on you can type a normal description and, lo and behold, it's going to word wrap you just the way you like it. See? Doesn't that make you feel all warm and fuzzy and shit inside of your body?

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch v3
# You are currently editing a commit while rebasing branch 'master' on
#   (use "git commit --amend" to amend the current commit)
#   (use "git rebase --continue" once you are satisfied with your changes)
```

⌘

# proper messages



wraps at 72c

Just keep typing until you notice your text changes colors

From this point on you can type a normal description and, lo and behold, it's going to word wrap you just the way you like it. See? Doesn't that make you feel all warm and fuzzy and shit inside of your body?

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# On branch v3
# You are currently editing a commit while rebasing branch 'master' on
#   (use "git commit --amend" to amend the current commit)
#   (use "git rebase --continue" once you are satisfied with your changes)
```

4

proper **messages**

.....

Assumes your  
\$EDITOR is **vim**

proper **messages**

.....

```
export EDITOR=vim
```

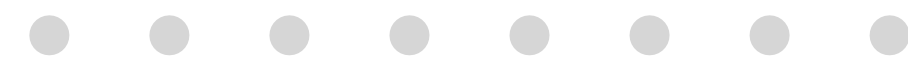
proper **messages**

.....

Assumes you have  
**syntax highlighting** on



proper **messages**



*syntax* **on**

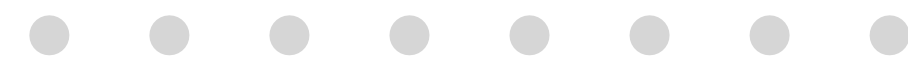
~/**.vimrc**

proper **messages**

.....

Assumes you have  
**plugin indenting on**

proper **messages**



filetype indent plugin **on**

~/**.vimrc**

Git & GitHub  
secrets

canonical **URLS**



This repository

Search or type a command



Explore Gist Blog Help



holman



PUBLIC



play / play

Unwatch

Unstar

1,322

Fork

172

branch: master

play / README.md



kevinsawicki a year ago Update Android application screenshot

7 contributors



file | 240 lines (144 sloc) | 8.411 kb

Edit

Raw

Blame

History

Delete

# Play

Play is an employee-powered iTunes-based client-driven distributed music server for your office. Also it can prepare your taxes.

## Background

Did you know that listening to music while you work produces better and faster code? It's true. It's in a README.

We listen to music constantly at GitHub. So I wrote Play. Initially it was a modest shell-oriented music server, but we've since grown it to quite the setup:



kevinsawicki a year ago Update Android application screenshot 7 contributors

Navigation sidebar with icons for code, info, and links.

# Play

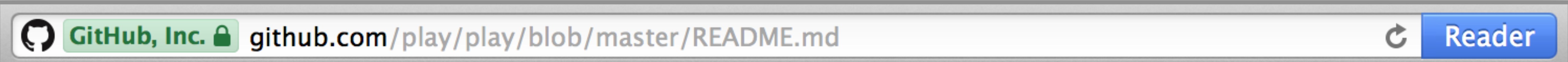
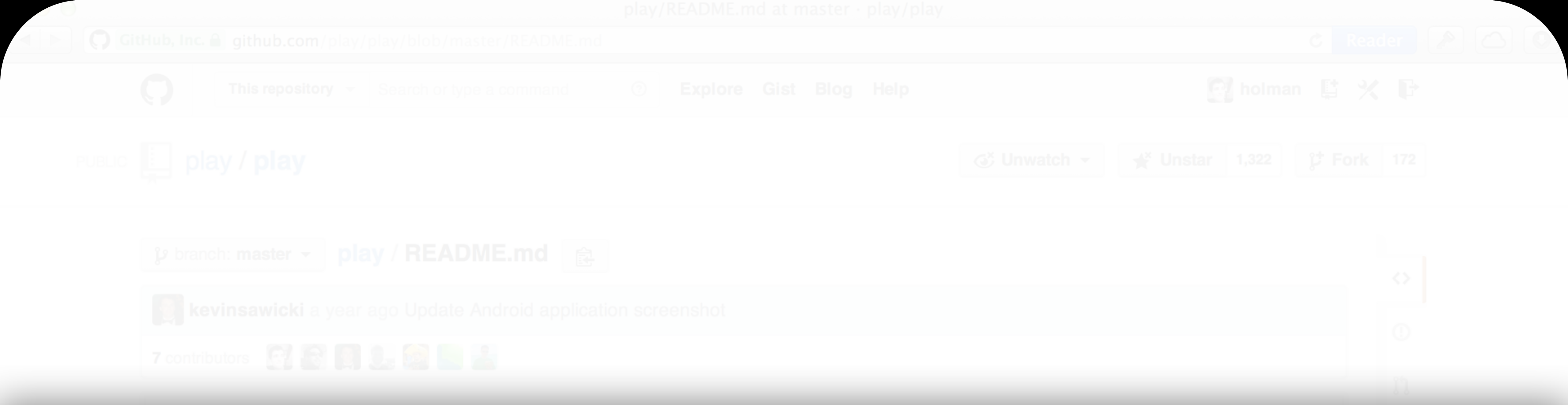
Play is an employee-powered iTunes-based client-driven distributed music server for your office. Also it can prepare your taxes.

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Did you know that listening to music while you work produces better and faster code? It's true. It's in a README.

We listen to music constantly at GitHub. So I wrote Play. Initially it was a modest shell-oriented music server, but we've since grown it to quite the setup:

Vertical sidebar with icons for code, info, and links.



# Play

Play is an employee-powered iTunes-based client-driven distributed music server. Also, it can play to you.

## Background

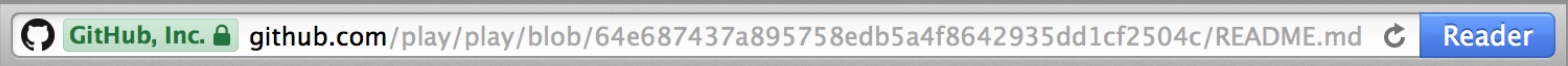
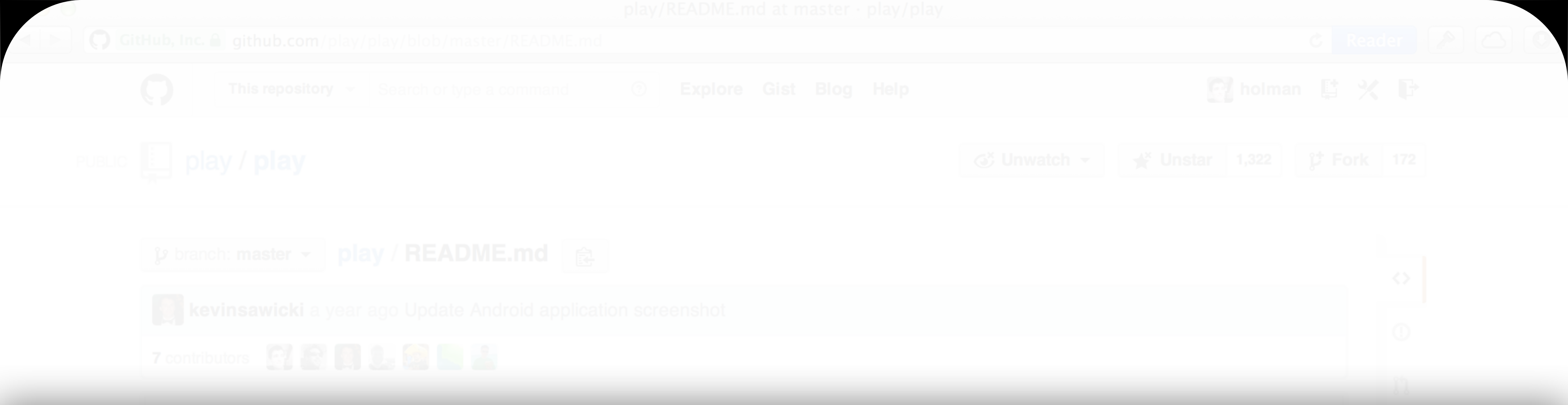
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We listen to music constantly at GitHub. So I wrote Play. Initially it was a modest shell-oriented music server, but we've since grown it into quite the setup:

press







# Play

Play is an employee-powered iTunes-based client-driven distributed music server. Also, it can play to you.

## Background

Did you know that listening to music while you work produces better and faster code? It's true. It's in a README.

We listen to music constantly at GitHub. So I wrote Play. Initially it was a modest shell-oriented music server, but we've since grown it - quite the setup:

press



This page  
**won't change,**  
even if the branch does

## Background

Did you know that listening to music while you work produces better and faster code? It's true. It's in a README.

We listen to music constantly at GitHub. So I wrote Play. Initially it was a modest shell-oriented music server, but we've since grown it - quite the setup:

curlable  
**public keys**

[https://!\[\]\(125d701e9425b54c764340b5671b38cd\_img.jpg\)/holman.keys](https://github.com/holman/keys)

 / *user.keys*

.....

Plaintext,

**non-authed**

access to public keys

 / *user.keys*

.....

**Programmatically**  
add SSH keys

fetching pulls

fetching **pulls**

.....

**Accepting** a Pull Request:

Add a remote, fetch branch, merge

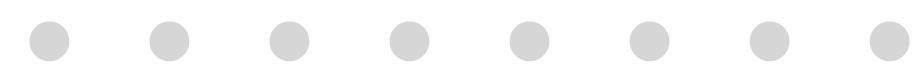


fetching **pulls**

.....

Lots of **boring** commands

fetching **pulls**



GitHub stores all Pull Requests  
**in your repository**

fetching **pulls**

.....

This means we can track code  
even if the **fork is deleted**

fetching **pulls**

.....

You can **abuse this**, too!

fetching **pulls**

.....

```
git fetch origin pull/id/head:name
```

fetching **pulls**

.....

```
git fetch origin pull/12/head:pr
```

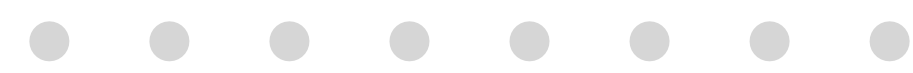
# fetching **pulls**

.....

```
git fetch origin pull/12/head:pr
```

fetches Pull Request #12 into a  
branch named “pr”




fetching **pulls**






Automate this within  
**helper scripts** or an **alias**



live updates




	holman	hook up javascript again	<a href="#">eu2c8e</a>
	holman	Remove scaffolded css	<a href="#">f199c60</a>
	holman	Make sure errors get cleared	✓ <a href="#">6199391</a>

-  **holman** hook up javascript again euzc6e
-  **holman** Remove scaffolded css f199c60
-  **holman** Make sure errors get cleared ✔ 6199391



 **holman** commented 2 months ago  

Probably finna merge after lunch.

	holman	hook up javascript again	<a href="#">euzc8e</a>
	holman	Remove scaffolded css	<a href="#">f199c60</a>
	holman	Make sure errors get cleared	✓ <a href="#">6199391</a>




 **holman** commented 2 months ago  

Probably finna merge after lunch.



 **holman** referenced this pull request from a commit 2 months ago

 **holman** Merge pull request #262 from play/v3-rails  [6fb63e1](#)

Merged



**holman** merged commit [6fb63e1](#) into [v3](#) from [v3-rails](#) 2 months ago

Closed






**holman** closed the pull request 2 months ago

Deleted



**holman** deleted the [v3-rails](#) branch 2 months ago **Restore**

-  **holman** hook up javascript again euzc6e
-  **holman** Remove scaffolded css f199c60
-  **holman** Make sure errors get cleared ✔ 6199391



 **holman** commented 2 months ago  

Probably finna merge after lunch.



 **holman** referenced this pull request from a commit 2 months ago

 **holman** Merge pull request #262 from play/v3-rails ⋮ 6fb63e1

**Merged**



**holman** merged commit `6fb63e1` into `v3` from `v3-rails` 2 months ago

**Closed**



**holman** closed the pull request 2 months ago

**Deleted**



**holman** deleted the `v3-rails` branch 2 months ago **Restore**



 **holman** commented 2 months ago  

I had lunch.

**HOT, HOT,  
TRIVIA  
BREAK**

**Most frequent  
Emoji used on  
GitHub:**

#5

:clap:





#4

:+1:



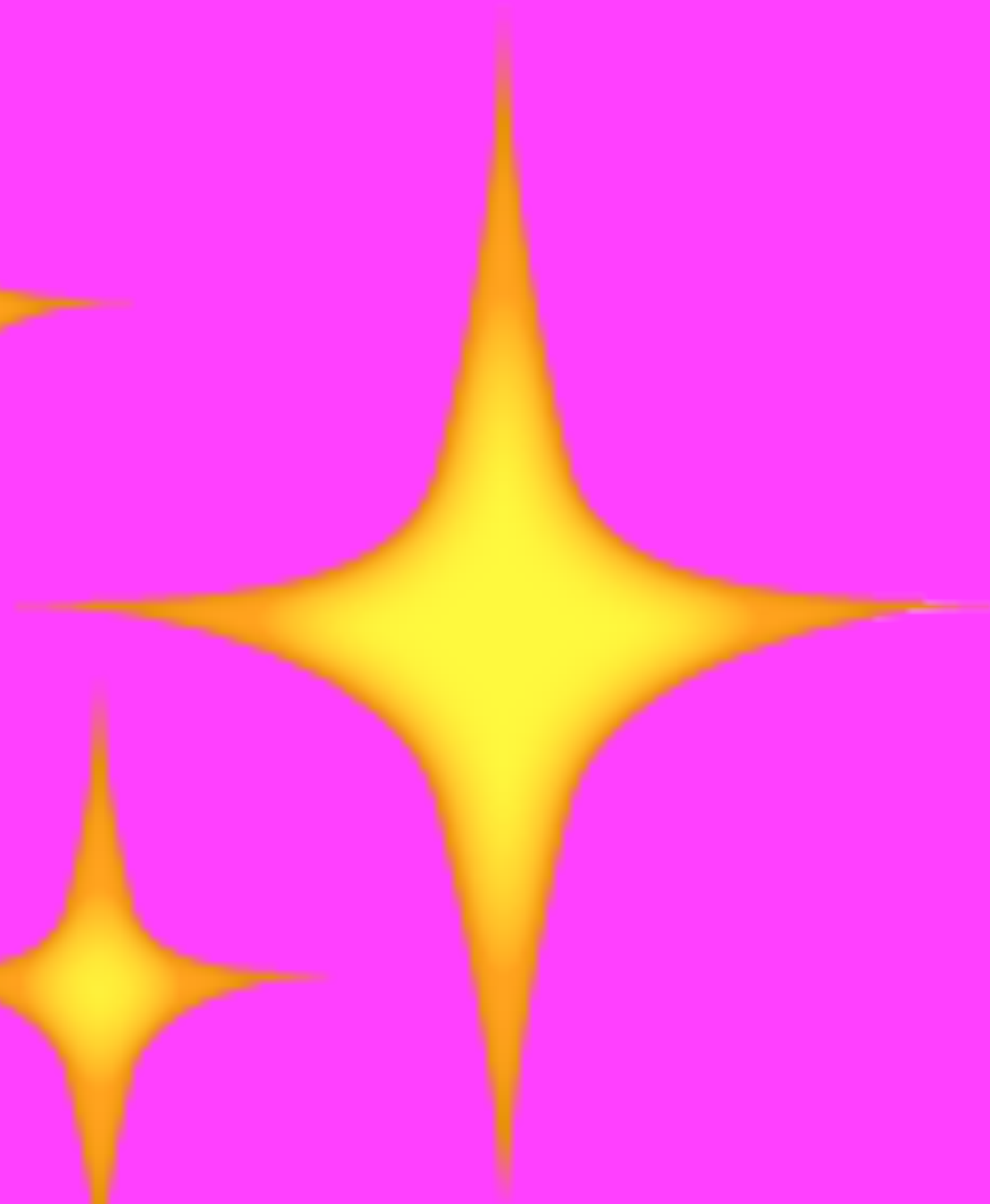
#3

:-1:



#2

:sparkles:



#1

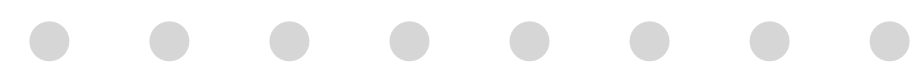



:shipit:



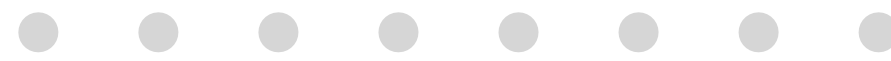
quick quotes

quick quotes



Markdown uses  for blockquotes

# quick quotes



defunkt opened this issue a minute ago

Edit

## An issue

No one is assigned

No milestone

Um, he's sick. My best friend's sister's boyfriend's brother's girlfriend heard from this guy who knows this kid who's going with the girl who saw Ferris pass out at 31 Flavors last night. I guess it's pretty serious.

1 participant



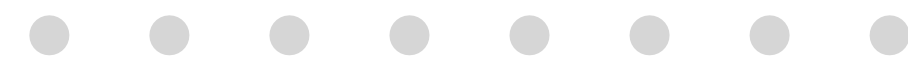
Write

Preview

Comments are parsed with [GitHub Flavored Markdown](#)

> Um, he's sick. My best friend's sister's boyfriend's brother's girlfriend heard from this guy who knows this kid who's going with the girl who saw Ferris pass out at 31 Flavors last night. I guess it's pretty serious.

quick quotes



Highlight and press 




# quick quotes




defunkt opened this issue 2 minutes ago

Edit

## An issue

No one is assigned 

No milestone 

Um, he's sick. My best friend's sister's boyfriend's brother's girlfriend heard from this guy who knows this kid who's going with the girl who saw Ferris pass out at 31 Flavors last night. I guess it's pretty serious.

1 participant



Write

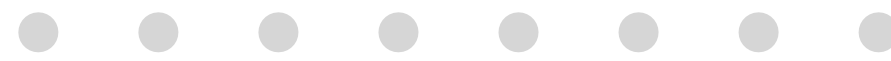
Preview

Comments are parsed with [GitHub Flavored Markdown](#)

Leave a comment




# quick quotes




defunkt opened this issue 2 minutes ago

Edit

## An issue

No one is assigned 

No milestone 

Um, he's sick. My best friend's sister's boyfriend's brother's girlfriend heard from this guy who knows this kid who's going with the girl who saw Ferris pass out at 31 Flavors last night. I guess it's pretty serious.

1 participant



Write

Preview

Comments are parsed with [GitHub Flavored Markdown](#)

> Um, he's sick. My best friend's sister's boyfriend's brother's girlfriend heard from this guy who knows this kid who's going with the girl who saw Ferris pass out at 31 Flavors last night. I guess it's pretty serious.

browse **stars**

`http://`  `/ stars / brianmario`



Search or type a command



Explore Gist Blog Help



holman



brianmario (Brian Lopez) / starred

Unfollow

303

All Stars

709

Your repositories

0

Others' repositories

709

Search starred repositories...

Sort: Recently starred

### Filter by languages

Ruby

413

C

⊗

JavaScript

96

C++

17

Objective-C

12

Python

10

C#

9

Erlang

7

PHP

5

Java

5

CoffeeScript

4

Shell

3

Go

2

Scala

2



**charliesome/racer** Starred a year ago  
A high performance Ruby web server

★ Star



**mruby/mruby** Starred a year ago  
Lightweight Ruby

★ Star



**neelance/ffi-gen** Starred a year ago  
A generator for Ruby FFI bindings, directly from header files via LLVM's Clang compiler

★ Star



**ohler55/oj** Starred a year ago  
Optimized JSON

★ Star



**fdrr/redrat** Starred 2 years ago  
Ruby and Python speak C.

★ Star



**methodmissing/jio** Starred 2 years ago  
jio - transactional, journaled file I/O for Ruby

★ Star



**vmg/houdini** Starred 2 years ago  
The Escapist

★ Star

web flow

**web flow**

.....

You can do a lot without  
leaving the **browser**

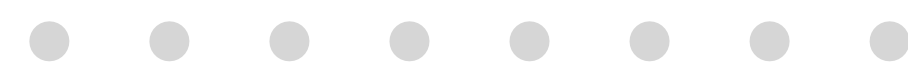
**web flow**

.....

Documentation, prose,  
quick fixes, switching  
away from nosql



# web flow



branch: **master** ▾

**dotfiles** /

## Switch branches/tags

**Branches**

Tags

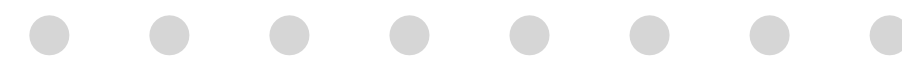
**Create branch: add-gitignore**  
from 'master'

commit

commit

**README.md**

# web flow



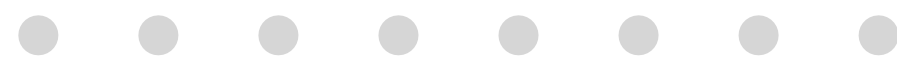
 branch: **add-gitignore** ▼

**dotfiles** /



Create a new file here

# web flow



dotfiles /  or cancel

Want to use a .gitignore template? Choose .gitignore: **Ruby** ▾

```
1 *.gem
2 *.rbc
3 .bundle
4 .config
5 coverage
6 InstalledFiles
7 lib/bundler/man
8 pkg
9 rdoc
10 spec/reports
11 test/tmp
12 test/version_tmp
13 tmp
14
15 # YARD artifacts
16 .yardoc
17 _yardoc
18 doc/
```

# web flow

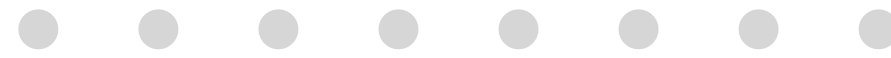


 Your recently pushed branches:

 **Compare & pull request**

**add-gitignore** (less than a minute ago)

# web flow



You can add more commits to this pull request by pushing to the `add-gitignore` branch on `defunkt/dotfiles`



**This pull request can be automatically merged.**

You can also merge branches on the [command line](#).

 Merge pull request

# web flow



## **Pull request successfully merged and closed**

You're all set—the `add-gitignore` branch can be safely deleted.

 **Delete branch**

**web flow**

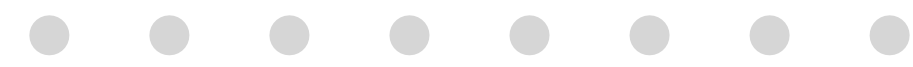
.....

Frees you from **git clone**

issue autocomplete



issue autocomplete



Type , get a search



Title

No one is assigned



No milestone



Write

Preview

Comments are parsed with [GitHub Flavored Markdown](#)

We broke something in



Attach images by dragging & dropping or [selecting them](#).

Submit new issue



Title

No one is assigned



No milestone



Write

Preview

Comments are parsed with [GitHub Flavored Markdown](#)

We broke something in #



#2 ★

#89 pjax

#v3 v3

#19 Travis

#193 Autodj

Attach images by dragging & dropping or [selecting them](#).

Submit new issue



Title

No one is assigned



No milestone



Write

Preview

Comments are parsed with [GitHub Flavored Markdown](#)

We broke something in #rails



#280 **Rails 4**

#293 **V3 api rails**

#279 **Use Rails URL helpers**

#210 **404 on redirect to API login**

#126 **gem rb-fsevent fail to build native extension**

Attach images by dragging & dropping or [selecting them](#).

Submit new issue



Title

No one is assigned



No milestone



Write

Preview

Comments are parsed with [GitHub Flavored Markdown](#)

We broke something in #280



Attach images by dragging & dropping or [selecting them](#).

Submit new issue

repo **redirects**

repo **redirects**

.....

**Rename** your repository  
and GitHub will redirect  
old URLs

`in-repo` **licensing**



**Initialize this repository with a README**

This will allow you to `git clone` the repository immediately.

Add .gitignore: **None** ▼

Add a license: **None** ▼



**Create repository**

**Licenses** ⓧ

Filter licenses...

GPL v2

✓ **MIT License**

Affero GPL

Artistic License 2.0

in-repo **licensing**

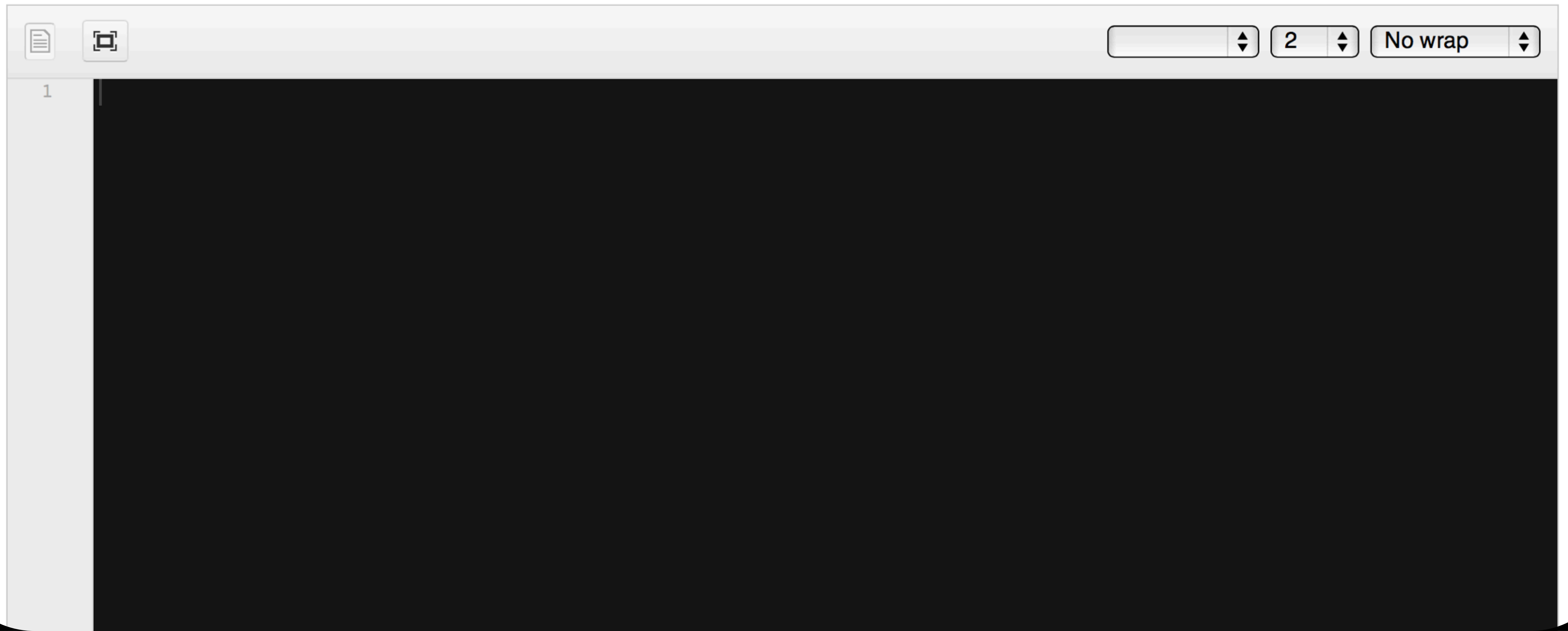
.....

You can add licenses to  
**existing repos, too**

# in-repo licensing



dotjs /  or cancel



# in-repo licensing



dotjs / LICENSE or cancel

Want to use a template? Choose a license: **None**

### License

- Apache v2 License
- GPL v2
- ✓ MIT License**
- Affero GPL
- Artistic License 2.0
- BSD (3-Clause) License
- BSD 2-Clause license
- Eclipse Public License v1.0
- GPL v3

in-repo **licensing**

.....

(also works for **.gitignore**)

file finder

file **finder**


.....

Type **t**, find in project

# file finder



 holman / boom

 Unwatch ▾ 18

 Unstar 661

 Fork 84

boom / .md

 README.md
 LICENSE.md
 CHANGELOG.md
 completion/README.md





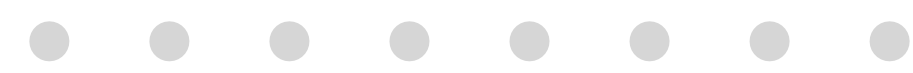
**task lists**

**task lists**

.....

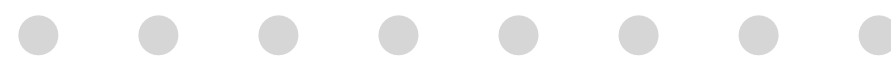
Use issues and pulls as  
**todo lists**

# task lists



- [ ] Use NoSQL
- [ ] Use today's trendiest language
- [ ] Do what our VC tells us
- [ ] Comment on Hacker News
- [ ] Profit

# task lists




holman opened this pull request a minute ago

Edit

## Make a successful startup

No one is assigned 

No milestone 

- Use NoSQL
- Use today's trendiest language
- Do what our VC tells us
- Comment on Hacker News
- Profit


# task lists




holman opened this pull request 2 minutes ago

Edit

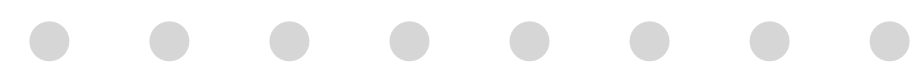
## Make a successful startup

No one is assigned 

No milestone 

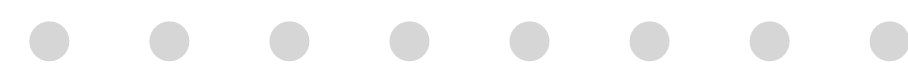
- Use NoSQL
- Use today's trendiest language
- Do what our VC tells us
- Comment on Hacker News
- Profit

# task lists



- Use NoSQL
- Use today's trendiest language
- Do what our VC tells us
- Comment on Hacker News
- Profit

# task lists



Open

Closed

Sort: Newest ▼



## Make a successful startup

#2

5 tasks (4 completed, 1 remaining)

by holman 7 minutes ago

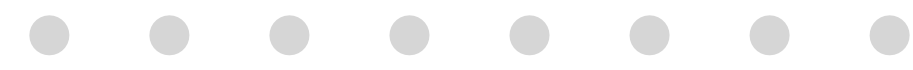


haha-business!

fork **URLS**



# fork URLs



 <b>Fork</b>	<b>84</b>
--	-----------



This repository ▾

Search or type a command ?

Explore Gist Blog Help

PUBLIC holman / boom

18 **Unstar** 656 **Fork** 84


Motherfucking TEXT SNIPPETS! On

348 commits


branch: master boom /

bump changelog		
holman authored 7 days ago		633d71
bin	add magic e	years ago
completion	Fix bash com	years ago
lib	Change copy	days ago
test	Add a test	days ago
.gitignore	this shouldn't be a project-level declaration	3 years ago
.ruby-version	Designed for 1.9	4 months ago
.travis.yml	disable email notifications	4 months ago
CHANGELOG.md	bump changelog	7 days ago
Gemfile	bundler	2 years ago
Gemfile.lock	Use yajl	4 months ago
LICENSE		


Where should we fork this repository?




@holman



@github



@play



@libgit2

<> Code

Issues 10

Pull Requests 6

Wiki

Pulse

Graphs

Network

Settings

HTTPS clone URL

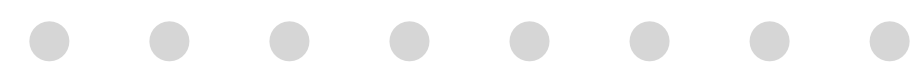
https://github.co

You can clone with [HTTPS](#), [SSH](#), [Subversion](#), and [other methods](#).

Clone in Desktop

Download ZIP

fork **URLs**



https://  / user / repo / **fork**



This repository ▾

Search or type a command

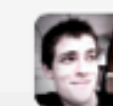


Explore

Gist

Blog

Help



holman + ▾



PUBLIC



holman / boom

Unwatch ▾ 18

Unstar 656

Fork 84

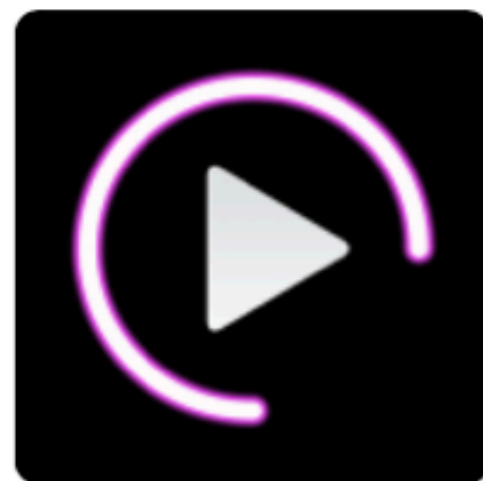
Where should we fork this repository?



@holman



@github



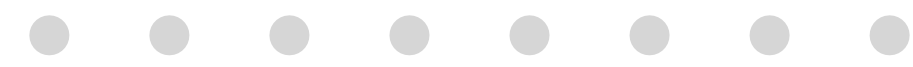
@play



@libgit2



fork **URLs**



**README** links

# fork URLs



## 🌀 what's inside

---

A lot of stuff. Seriously, a lot of stuff. Check them out in the file browser above and see what components may mesh up with you. [Fork it](#), remove what you don't use, and build on what you do use.

**Remember:**

**Git is probably terrible**



**But it's also neat**

**Thanks!**