# git & GitHub

# for Beginners

le wagon

@lesvotres

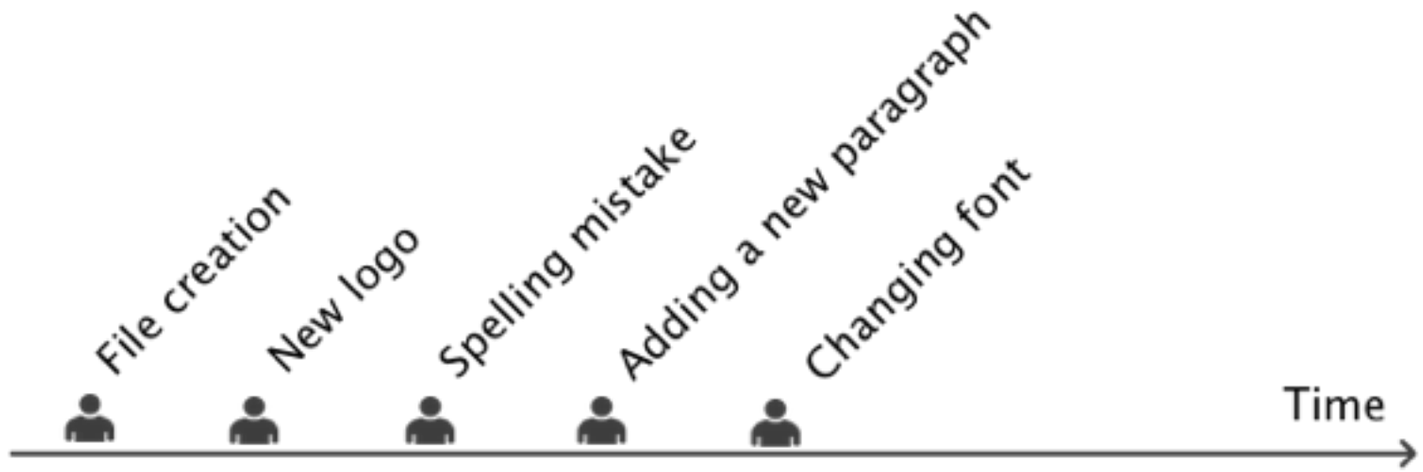
# Knowledge worker

We create and edit documents (text, images, etc.)

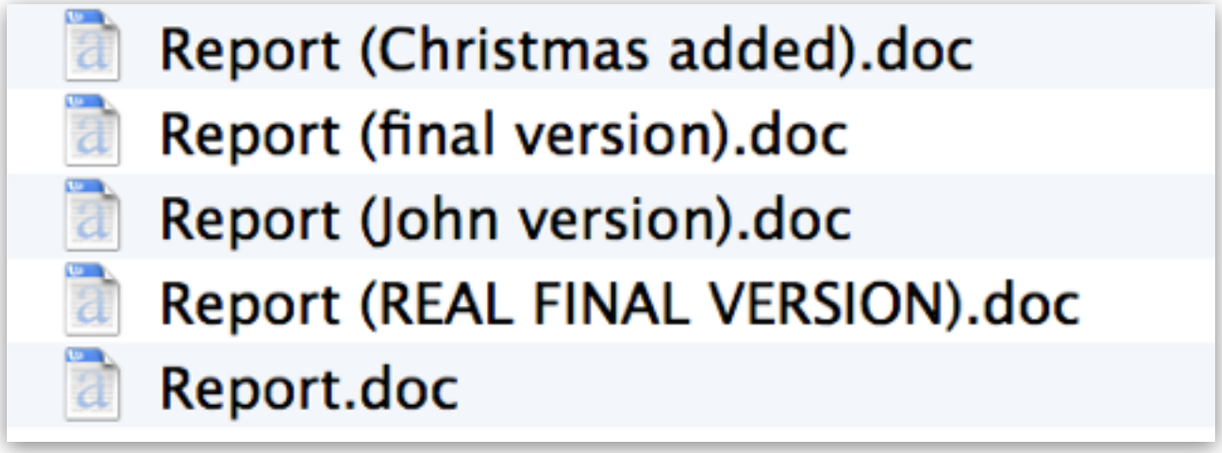
# Everyday workflow

1. Create a file
2. Save it
3. Edit it
4. Save it again
5. etc.

# File life


File creation
New logo
Spelling mistake
Adding a new paragraph
Changing font
Time

# Manual version control

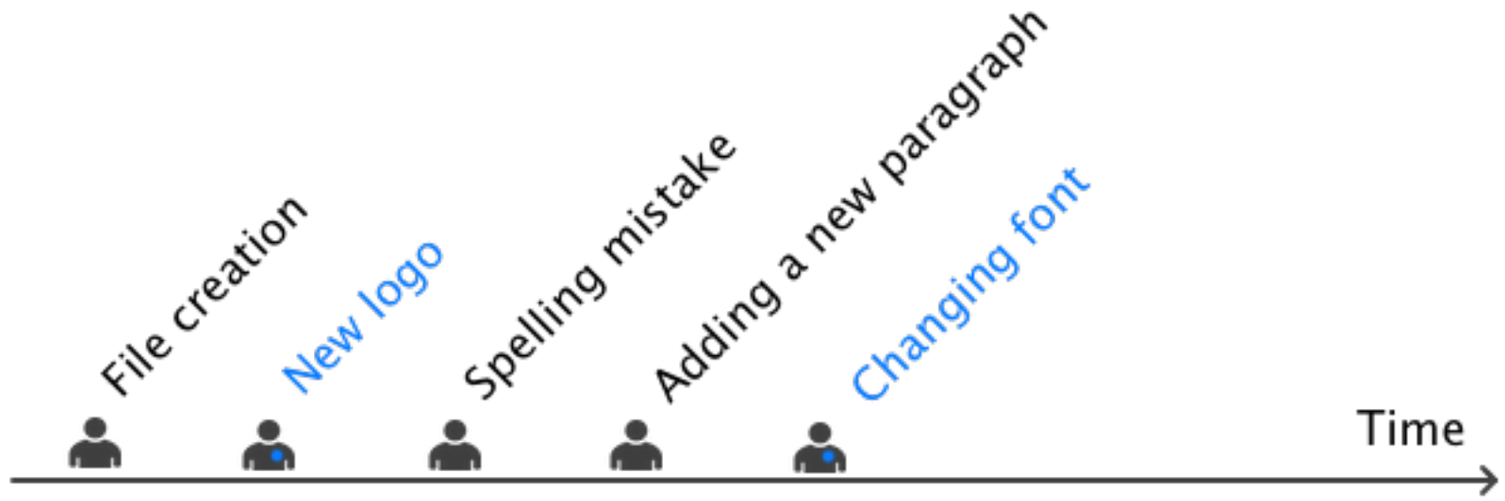


# Can we automate this?

For each document version, we need to know

1. **When** the file was modified
2. **What** changed
3. **Why** it was modified

# There’s more, teams



# Hence one more question

For each document version, we need to know

1. **When** the file was modified
2. **What** changed
3. **Why** it was modified
4. **Who** did the change

# In a nutshell

We want a tool which

1. tracks document version
2. keeps an history of document changes
3. foster team work

git

# Set up

Download & install git at http://git-scm.com/

# Your identity

```
$ git config --global user.name "Sebastien Saunier”
$ git config --global user.email "seb@lewagon.org"
```

# Basic commands

# Starting

```
$ mkdir new_project
$ cd new_project
$ git init
```

# Status

git can tell you if your folder has some modified files (dirty)

```
$ git status
```

# Commit

# 2-steps process

```
# Select which file to add to the commit.
$ git add <file_1_which_has_been_modified>
$ git add <file_2_which_has_been_modified>

# Take a snapshot of what is in the staging area.
$ git commit --message "A meaningful message about this change"
```

# Diff

If **git status** tells you something changed, you can inspect exactly what changed:

```
$ git diff
$ git diff <a_specific_file_or_folder>
```

# Log

Show **commit history** with

```
$ git log
```

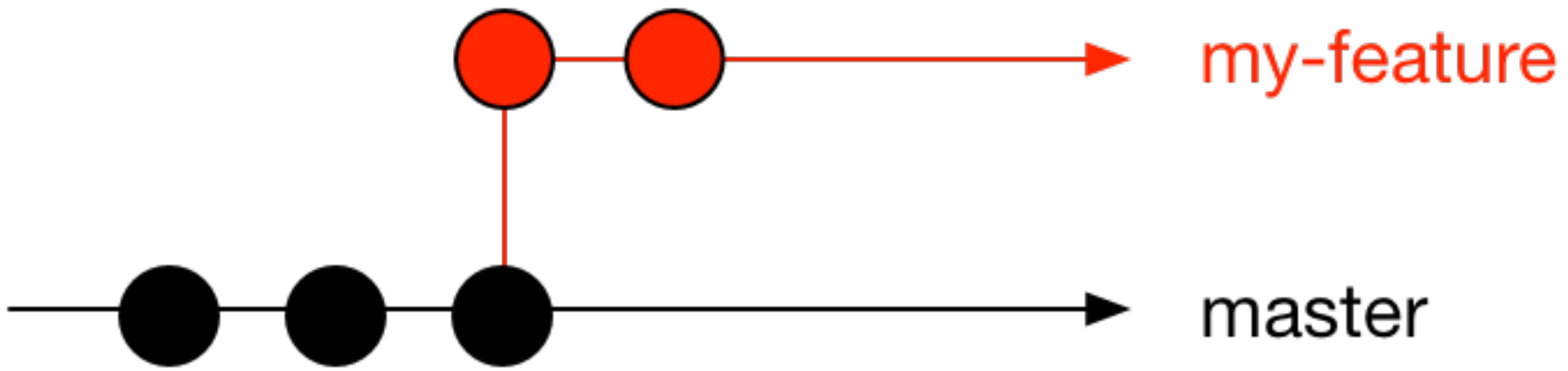
# Branching

# One feature = One branch

# Branch

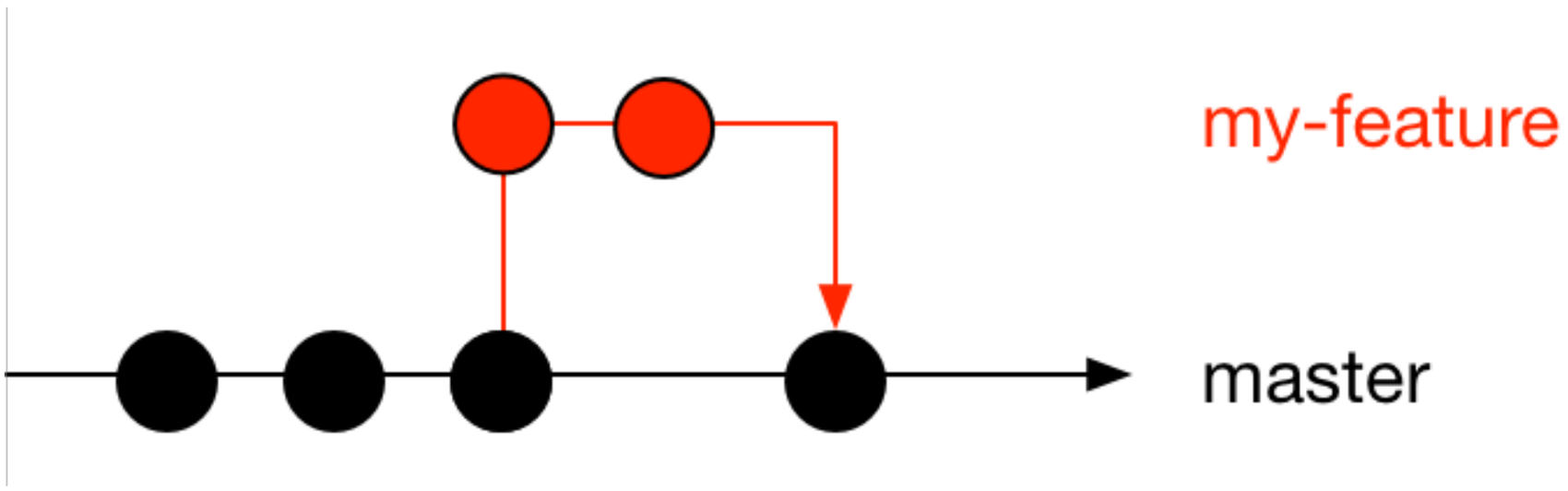
```
$ git branch my-feature
```

# Working in the Branch



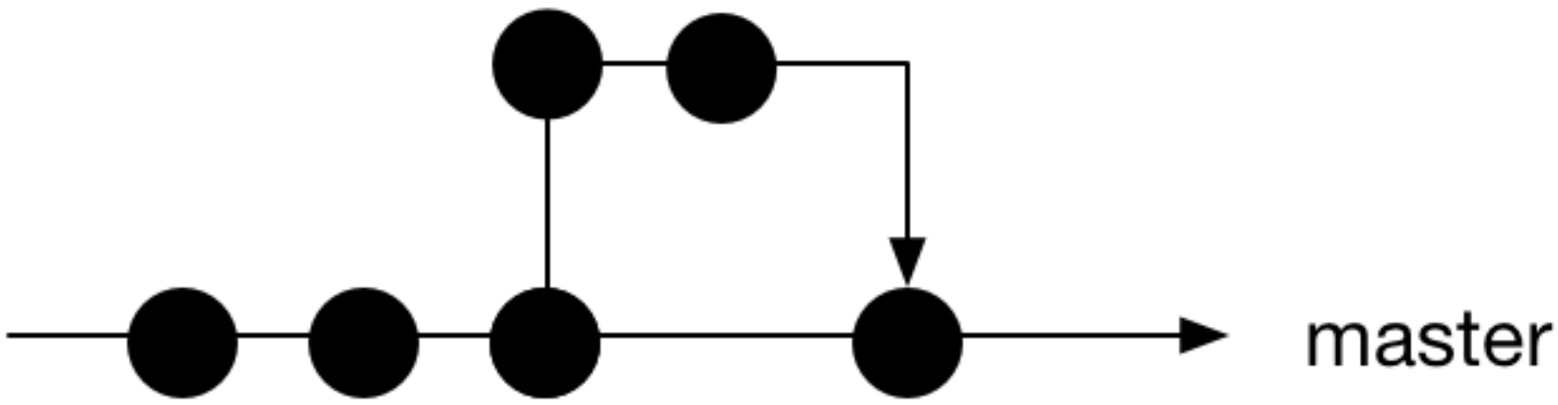

```
$ git checkout my-feature
$ git commit (x2)
```

# Merge




```
$ git checkout master
$ git diff master..my-feature
$ git merge --no-ff my-feature
```

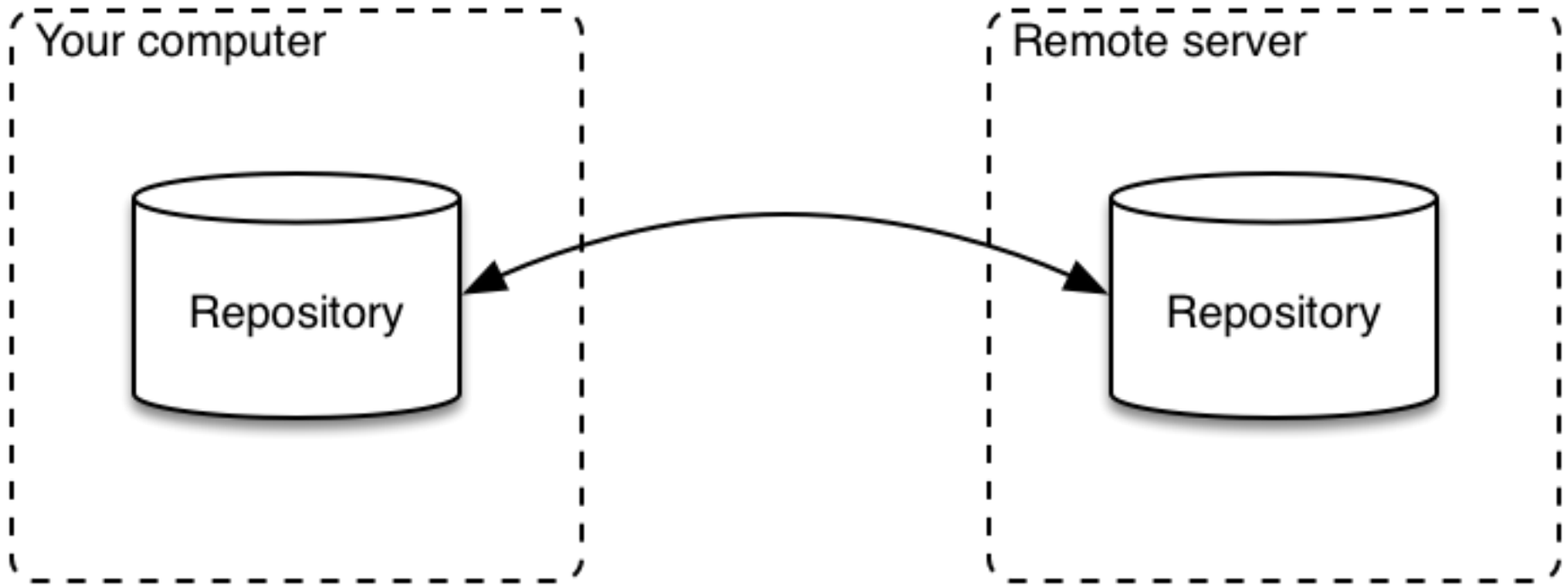
# Clean up




```
$ git branch -d my-feature
```

# Start Over

# Remote


Your computer
Repository
Remote server
Repository

# GitHub

Bitbucket

GitLab

# We need a remote!

Go to GitHub, create a repo: https://github.com/new

```
$ git remote add origin https://github.com/<user>/<project>.git
```

# Push

Share the code with your team, and the world

```
# Generic command
$ git push <remote> <branch>

# What we'll use
$ git push origin master
```

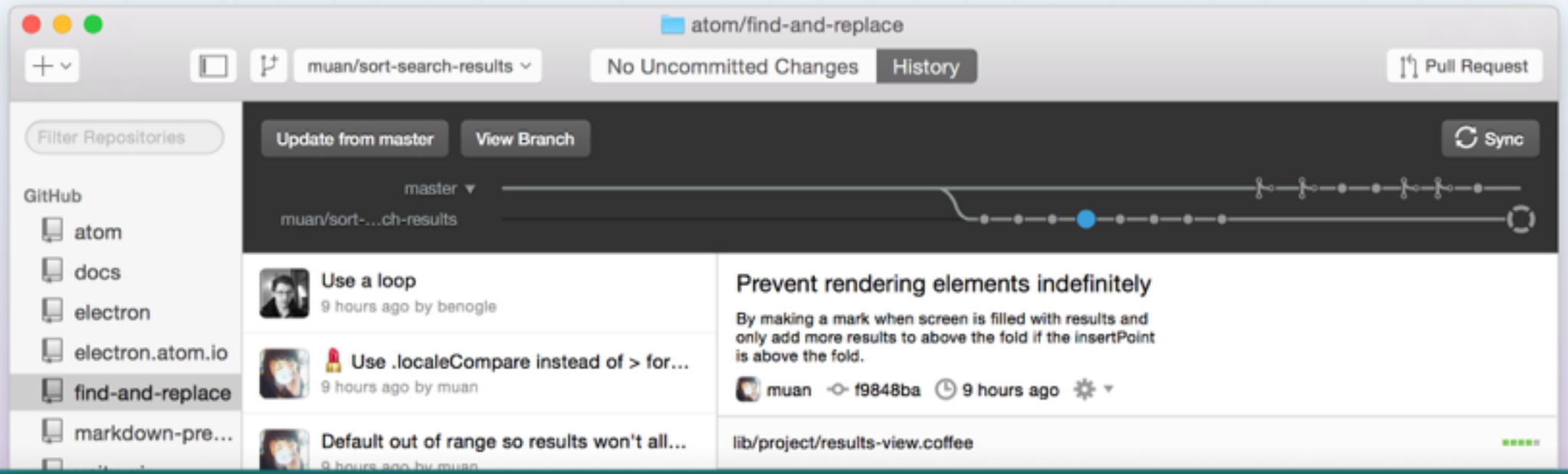
# Pull

```
# Generic command
$ git pull <remote> <branch>
```

```
# What we'll use
$ git pull origin master
```

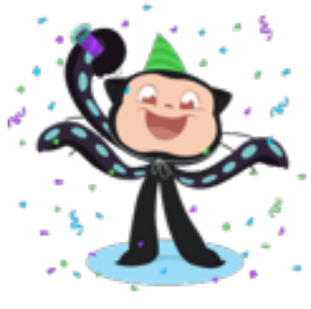
# Github Desktop app

desktop.github.com

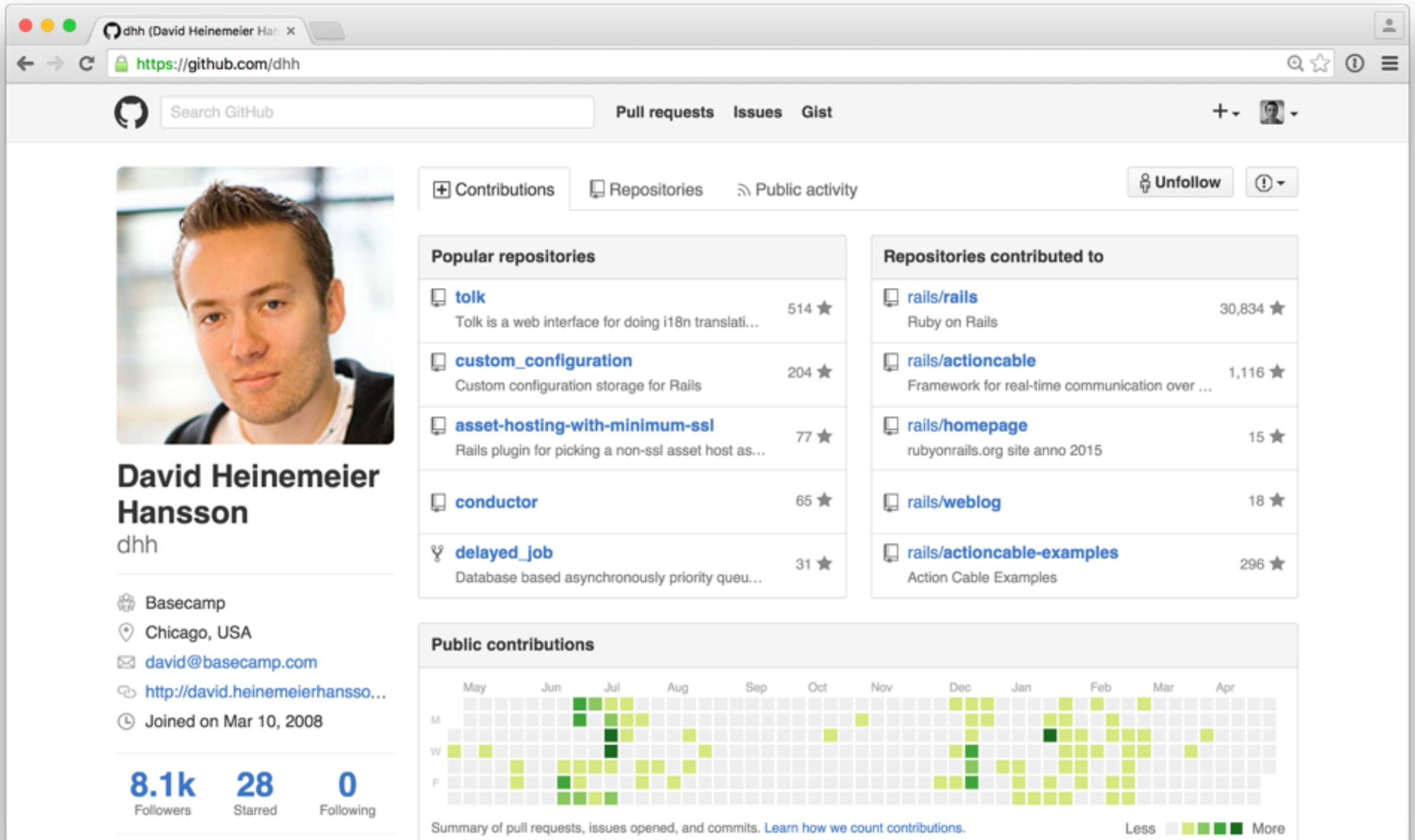



## Your GitHub workflow in one native app

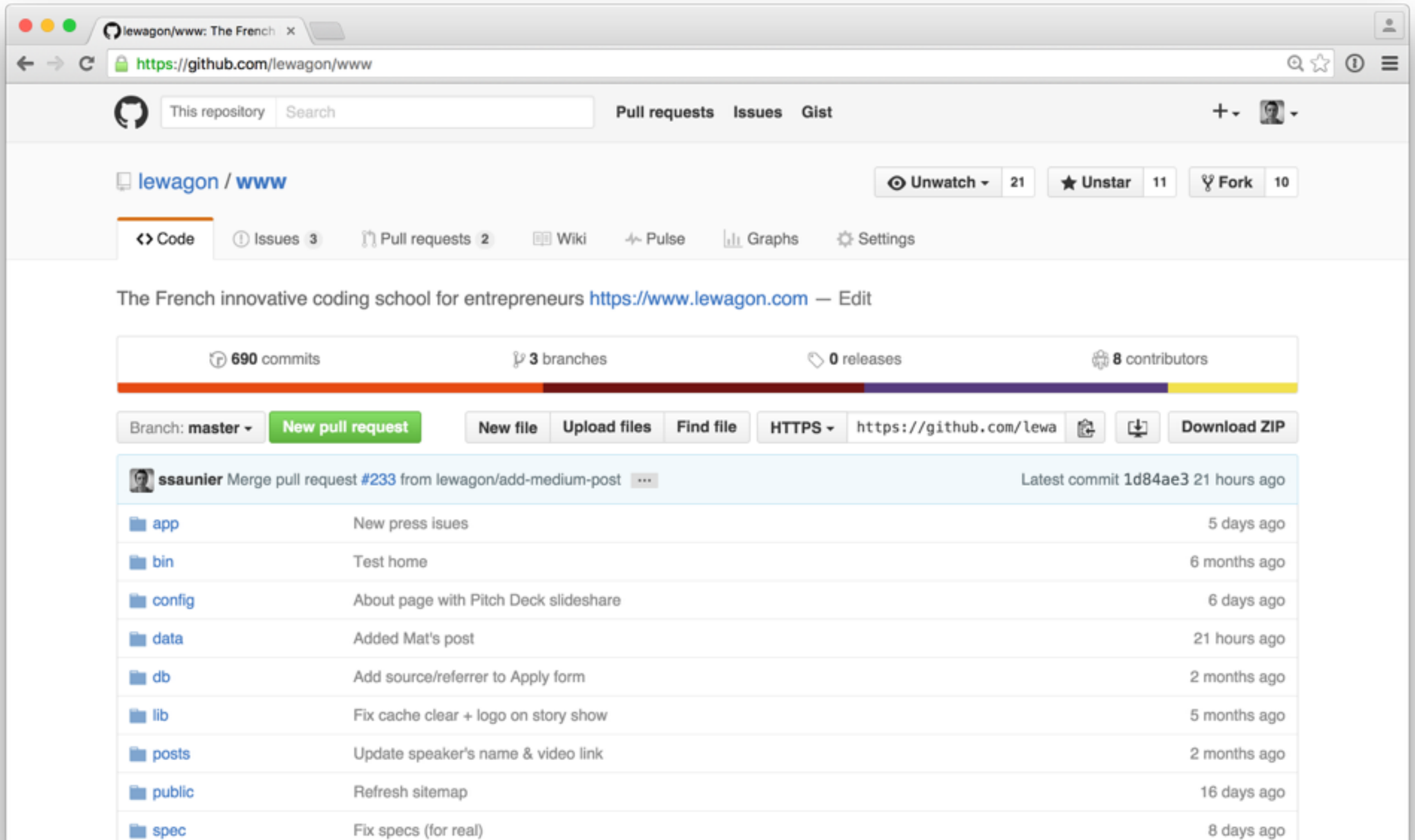
Clone repositories → Create branches → Commit changes → Share code



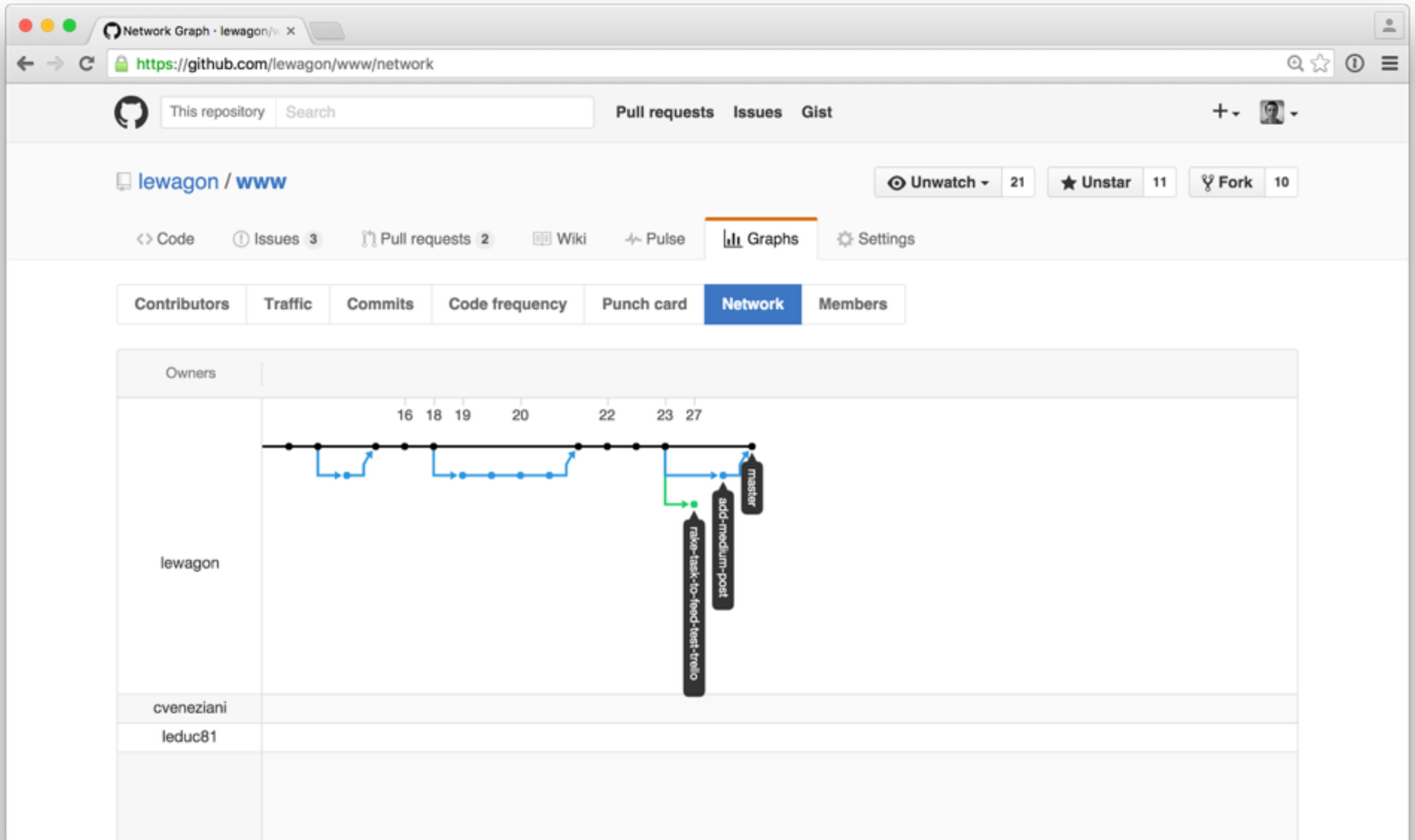
# Profile page



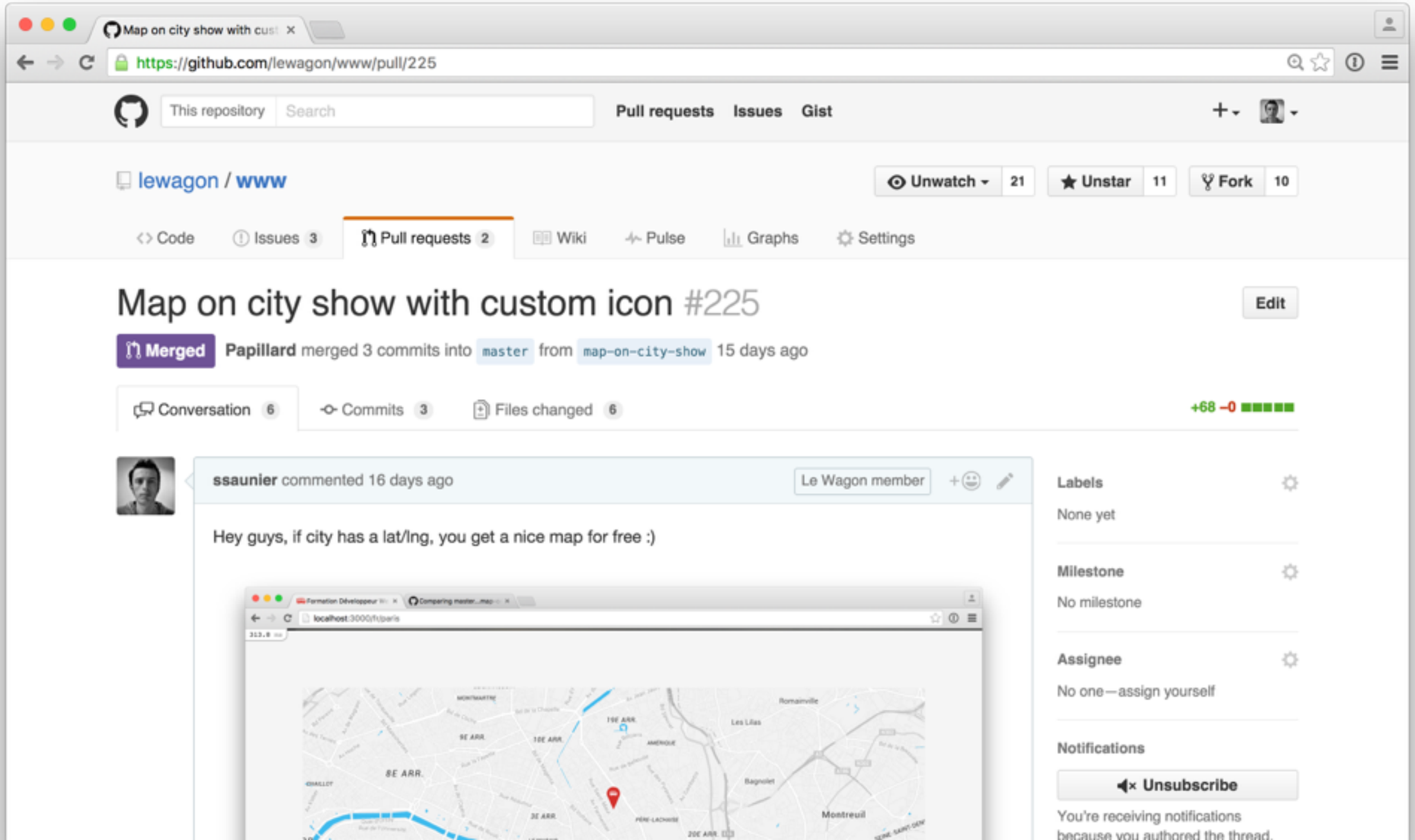
# Repository page



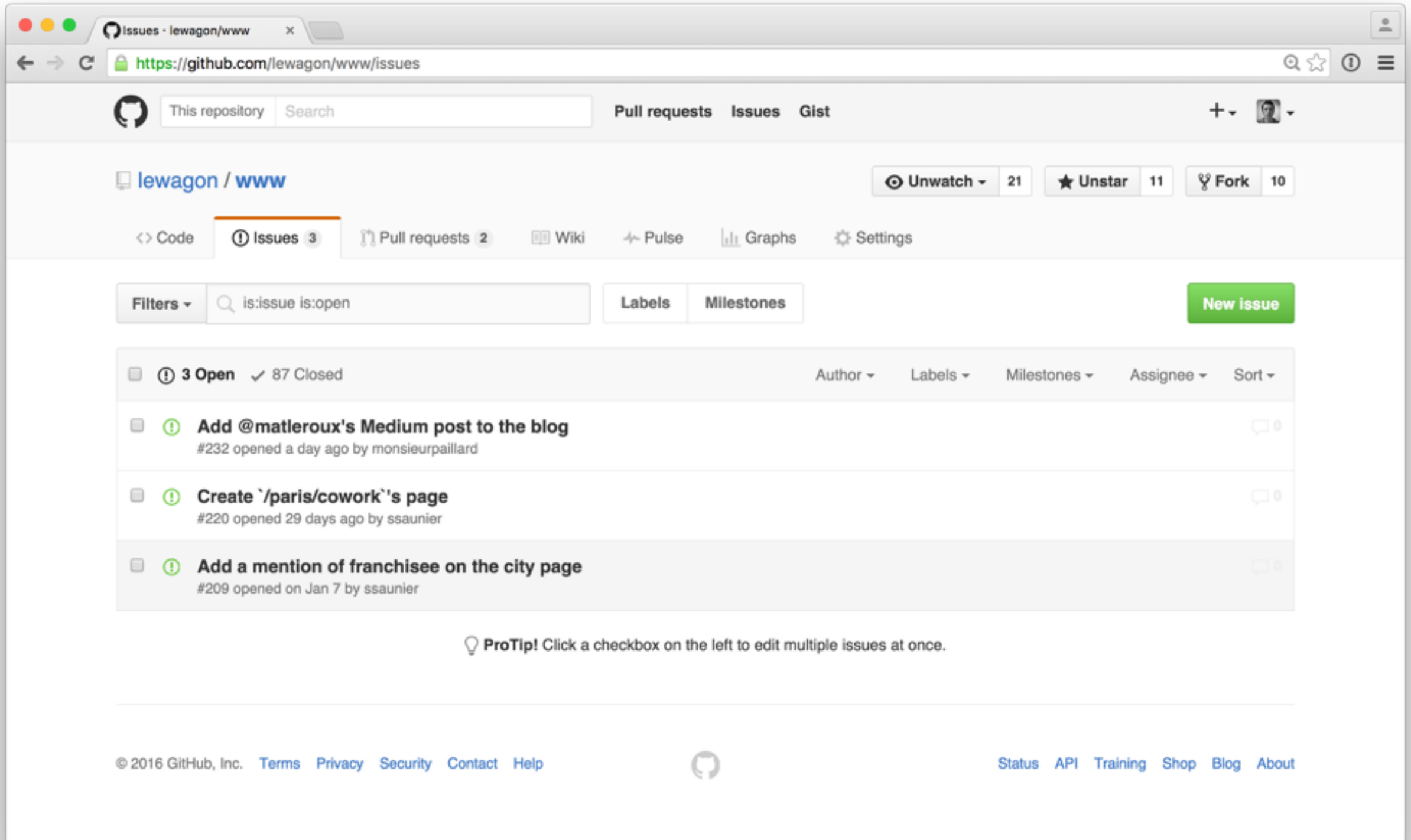
# Commits & Branches



# Pull requests



# Issues


Issues · lewagon/www
https://github.com/lewagon/www/issues
This repository
Search
Pull requests
Issues
Gist
lewagon / www
Unwatch 21
Unstar 11
Fork 10
Code
Issues 3
Pull requests 2
Wiki
Pulse
Graphs
Settings
Filters
is:issue is:open
Labels
Milestones
New issue
3 Open
87 Closed
Author
Labels
Milestones
Assignee
Sort
Add @matleroux's Medium post to the blog
#232 opened a day ago by monsieurpaillard
Create `/paris/cowork`'s page
#220 opened 29 days ago by ssaunier
Add a mention of franchisee on the city page
#209 opened on Jan 7 by ssaunier
ProTip! Click a checkbox on the left to edit multiple issues at once.
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# Forks

Open source contribution

# Github pages

Hosting your website for free!

**Repo example: lewagon/ui-components**

# Thank you!