

GitHub Flow

Brett Andrews

3.27.2018

Bad things happen.

- Sometimes the Universe is conspiring against you.
- Sometimes your collaborators are conspiring against you.
- Most likely, you're conspiring against you.

Protect your work from yourself.

Turn a project (in a local directory) into a git repository (repo):

```
git init
```

Add files and commit:

```
git add main.py
```

```
git commit -m "Fixes critical bug"
```

Protect your work from "water" spills.

Setup remote repo on GitHub:

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner



bretthandrews ▾

Repository name

github-flow



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

Description (optional)



Public

Anyone can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** ▾

Add a license: **None** ▾



Create repository

Protect your work from "water" spills.

Connect local and remote repos:

```
git remote add origin <server>
```

for me: <server> = `git@github.com:bretthandrews/github-flow.git`

Push to remote repo:

```
git push -u origin master
```

Protect your work from collaborators*

*including past-you and future-you.

- Work in branches
- Submit Pull Requests
- Merge branch into the **master** branch

Protect your work from collaborators

For now, let's assume that you are a collaborator on the project (i.e., have push-access).

The screenshot shows the GitHub repository page for `sdss / marvin`. At the top, there are buttons for `Unwatch` (8), `Unstar` (13), and `Fork` (7). Below these are tabs for `Code`, `Issues` (69), `Pull requests` (0), `ZenHub`, `Projects` (0), `Wiki`, `Insights`, and `Settings`. The main content area displays the repository description: "Data access and visualization for MaNGA. <http://sdss-marvin.readthedocs.io/en/latest/>". Below this are topic tags: `astronomy`, `manga`, `marvin`, and `sdss`, along with a `Manage topics` button. A progress bar shows repository statistics: 4,225 commits, 8 branches, 27 releases, 6 contributors, and BSD-3-Clause license. Below the progress bar are buttons for `Branch: master`, `New pull request`, `Create new file`, `Upload files`, `Find file`, and `Clone or download`. A commit by `brethandrews` is shown, adding `msgpack` to `requirements_dev.txt`. A file list shows `bin`, `docs`, `etc`, and `python/marvin`. A modal window titled "Clone with SSH" is open, showing the SSH URL `git@github.com:sdss/marvin.git` and buttons for `Open in Desktop` and `Download ZIP`.

```
git clone git@github.com:sdss/marvin.git
```

GitHub Flow by Scott Chacon

1. The **master** branch always works.
2. Create a descriptively-named branch for each new feature.
3. Commit locally and regularly push to the same named branch on GitHub.
4. Submit Pull Requests for feedback, help, and merging.
5. Only merge into master after someone signs off on your changes.

master Always Works

- Imperative if you are actively serving a web site.
- Even if not, always want a stable version of code.
 - Start new branches from **master**.
 - You need to run the last working version of the code.
- Bottom line: **don't actively develop in master.**

New Feature New Branch

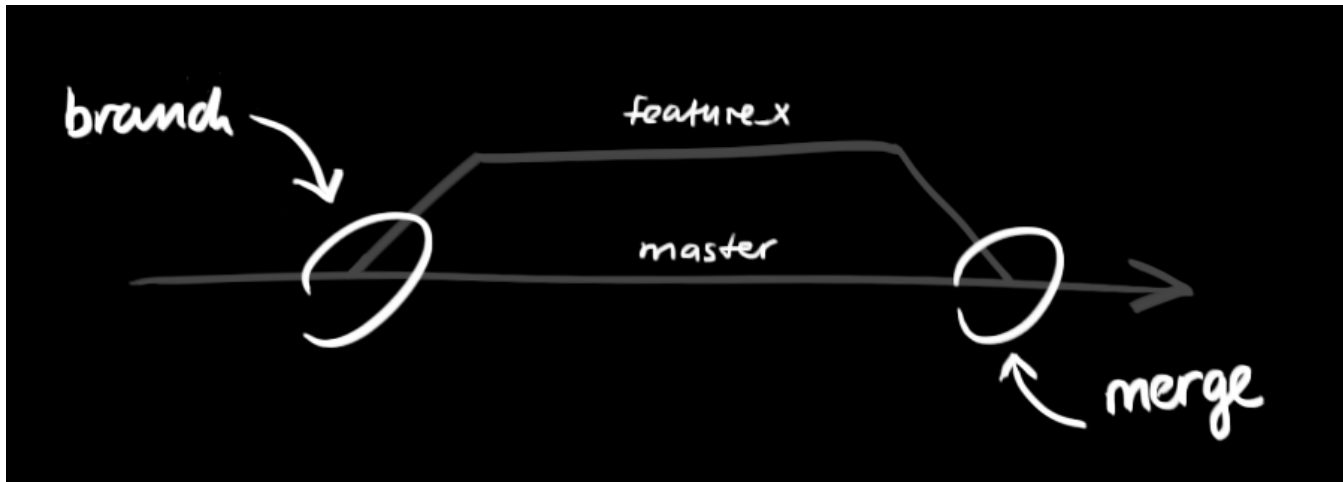


Image credit: <http://rogerdudler.github.io/git-guide/>

- One new feature per branch.
- Use descriptive names (future-you will thank you).

Create a new local branch:

```
git checkout -b github-flow
```

New Feature New Branch

Sync w/remote branch of same name.

```
git push origin github-flow
```

Nomenclature note:

- **origin** = my remote GitHub repo
- **upstream** = shared remote GitHub repo.

Commit and Push Frequently

- Make frequent commits.
- One idea or complete change per commit.
- Regularly push to remote branch (but pull first to incorporate changes):
git pull origin feature-x
git push origin feature-x

Pull Requests: Code Review

- When you're done or stuck, submit a Pull Request to your collaborators.
- Opportunity for you to review and communicate the changes that you made.
- Receive feedback and help from collaborators.
- Incorporate feedback.
- After the Pull Request gets approved, then merge your branch into **master**.

Create a Pull Request

sdss / marvin



Unwatch

8

Unstar

13

Fork

7

Code

Issues 69

Pull requests 0

ZenHub

Projects 0

Wiki

Insights

Settings

Data access and visualization for MaNGA. <http://sdss-marvin.readthedocs.io/en/latest/>

Edit

astronomy

manga

marvin

sdss

Manage topics

4,225 commits

8 branches

27 releases

6 contributors

BSD-3-Clause

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download











bretthandrews adds msgpack to requirements_dev.txt









Latest commit 8b8a6f8 9 days ago


bin	updating MPL6 datamodel; fixing non-mpl6 tests round 1	3 months ago
docs	fixes broken image links in plotting tutorial	a month ago
etc	test travis updated netrc	a year ago
python/marvin	Merge branch 'master' of https://github.com/sdss/marvin	a month ago


Create a Pull Request

 **sdss** / **marvin** 

 Unwatch  8  Unstar  13  Fork  7

 Code  Issues **69**  Pull requests **0**  ZenHub  Projects **0**  Wiki  Insights  Settings




Filters 








 is:pr is:open


Labels

Milestones

New pull request

  **0 Open**  35 Closed

Author  Labels  Projects  Milestones  Reviews  Assignee  Sort 



There aren't any open pull requests.

Use the links above to find what you're looking for, or try [a new search query](#). The Filters menu is also super helpful for quickly finding issues most relevant to you.

Pull Requests: Commit Log

sdss / marvin

Unwatch 8

Unstar 13

Fork 7

Code

Issues 69

Pull requests 0

ZenHub

Projects 0

Wiki

Insights

Settings

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).



base: master



compare: feedback

✗ Can't automatically merge. Don't worry, you can still create the pull request.

Still need to
merge **master**
into **feedback**

Create pull request Discuss and review the changes in this comparison with others.

Commits 102

Files changed 70

Commit comments 0

4 contributors

Commits on Feb 13, 2018

havok2063 adding a logout route

✗ 911ab09

Commits on Feb 22, 2018

havok2063 updating whan exercise; fixing #331

✗ f57b65d

Pull Requests: Code Changes

sdss / marvin



Unwatch

8

Unstar

13

Fork

7

<> Code

Issues 69

Pull requests 0

ZenHub

Projects 0

Wiki

Insights

Settings

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also [compare across forks](#).



base: master



compare: feedback

Can't automatically merge. Don't worry, you can still create the pull request.



Create pull request

Discuss and review the changes in this comparison with others.



Commits 102

Files changed 70

Commit comments 0

4 contributors

Showing 70 changed files with 1,541 additions and 1,563 deletions.

Unified

Split

2 .bumpversion.cfg

View



... @@ -1,5 +1,5 @@

1 [bumpversion]

2 -current_version = 2.2.2dev

2 +current_version = 2.2.3dev


3 commit = True


4 tag = False

Pull Requests: Communication

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

 base: master ◯ ◀ compare: feedback ◯ **✗ Can't automatically merge.** Don't worry, you can still create the pull request.



Feedback


Write Preview

AA ▾ B i “ <> 🔗 ☰ ☷ ✓ ↶ @ ★


Leave a comment


Describe your changes


Attach files by dragging & dropping, [selecting them](#), or pasting from the clipboard.


 Styling with Markdown is supported


Default Pipeline: New Issues ▾ **Create pull request**

 **Connect this pull request with an existing issue**



 Connect with an issue



Pipeline 


New Issues 

Reviewers 


Suggestions

 havok2063 


 albireox 

Assignees 


No one—assign yourself

Labels 

None yet

Projects 

None yet

Milestone 

18

GitHub Issues

sdss / marvin

Unwatch 8 Unstar 13 Fork 7

Code Issues 69 Pull requests 0 ZenHub Projects 0 Wiki Insights Settings

Filters is:issue is:open Labels Milestones New issue

69 Open 290 Closed Author Labels Projects Milestones Assignee Sort

- ☐ **Add Categorical Map Function** enhancement marvin-tools priority-medium
#393 opened 9 days ago by brettthandrews New Issues
- ☐ **WHAN solution does not mask spaxels properly** documentation
#392 opened 11 days ago by mlmarinelli New Issues 3
- ☐ **MPL-4 web crashes** bug marvin-web vetting
#388 opened 18 days ago by havok2063 New Issues

- Communicate ideas (including to future-you)
- Assign tasks
- Prioritize

GitHub Issues

Add Categorical Map Function #393

[Edit](#)[New issue](#)

Open bretthandrews opened this issue 9 days ago · 0 comments



bretthandrews commented 9 days ago

Member



Create a new function to create a categorical map (or add a mode to `mapplot.plot()`). Allow for passing in a `low_snr_mask` to mask out low SNR spaxels. Potentially write code to create the `low_snr_mask`.

Add Categorical Map Function has no dependencies

[+ add dependency](#)



bretthandrews added **enhancement** **priority-medium** **marvin-tools** labels 9 days ago



bretthandrews self-assigned this 9 days ago

Pipeline



New Issues



Assignees



bretthandrews

Labels



enhancement

marvin-tools

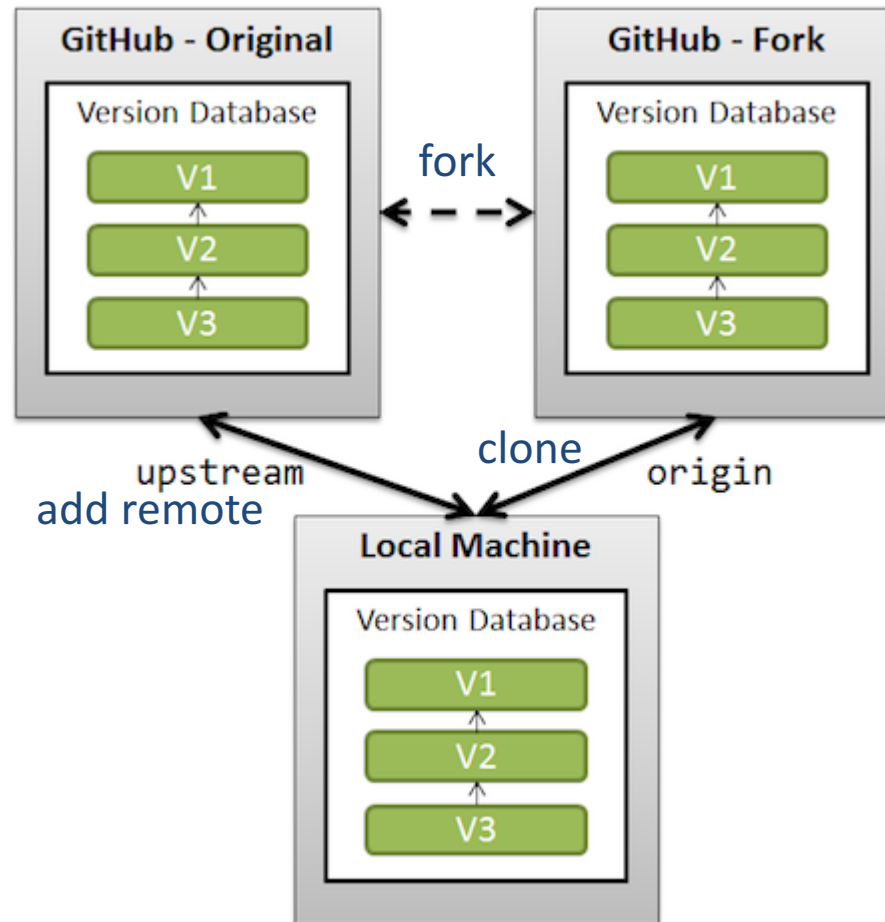
priority-medium

Projects



Forking: Concept

You want to contribute to a project...but you aren't a collaborator, so you can't push to it.



Forking: How To

The screenshot shows the GitHub interface for the repository `astropgh / Hack-Hour`. The repository name is highlighted with a green box. The `Fork` button is also highlighted with a green box. Below the repository name, the `Code` tab is selected. The repository is a fork of `astropgh/Hack-Hour`. The repository description is "talks/notebooks from cmu/pitt programming seminar series". The repository has 10 commits, 2 branches, 0 releases, and 3 contributors. The `Clone or download` button is highlighted with a green box. The `Clone with SSH` dropdown menu is open, showing the SSH URL `git@github.com:bretthandrews/Hack-Hour` highlighted with a green box. The `Open in Desktop` and `Download ZIP` buttons are also visible.

```
git clone git@github.com:bretthandrews/Hack-Hour.git
```

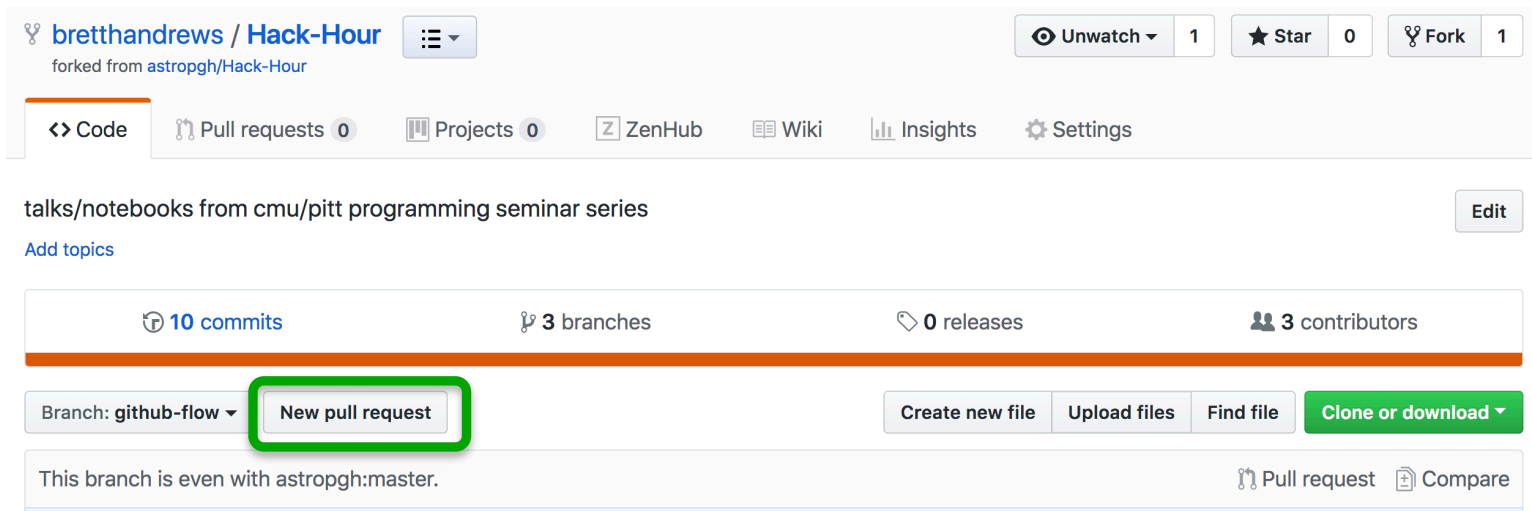
```
git remote add upstream git@github.com:astropgh/Hack-Hour.git
```

Forking: Contributing

- Pull from the original repo (**upstream**) and merge any changes.

`git pull upstream github-flow`

- Submit a Pull Request



- The owner of the **upstream** repo will review and possibly merge in your contributions.

Summary

- Don't actively develop on **master**.
- Make changes to master by merging approved Pull Requests.
- Make Pull Requests to ask for feedback on or review of a branch.
- Each branch corresponds to one new feature.
- Each commit corresponds to one complete change.