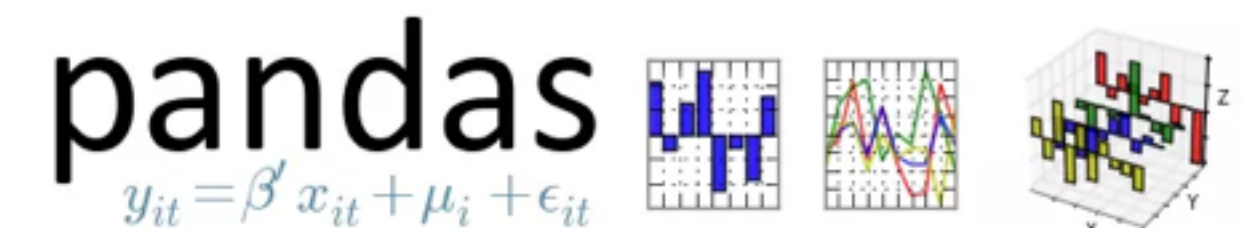# Become an
Open Source Contributor

Jaime Fernández

the python scientific stack
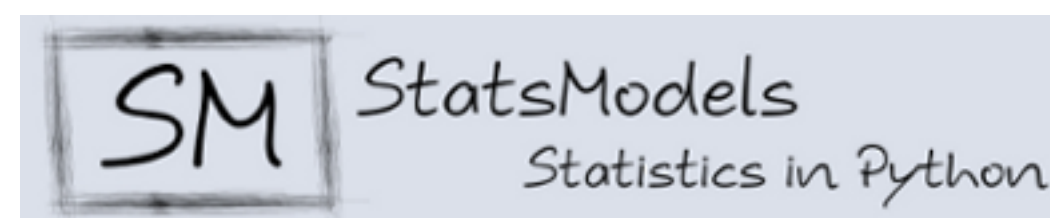
python™

https://hg.python.org/cpython/

NumPy

https://github.com/numpy/numpy

pandas

$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$

https://github.com/pydata/pandas

matplotlib

https://github.com/matplotlib/matplotlib

SciPy

https://github.com/scipy/scipy

IP[y]: IPython

https://github.com/ipython/ipython

SM StatsModels
Statistics in Python

https://github.com/statsmodels/statsmodels

Cython

https://github.com/cython/cython

jupyter

https://github.com/jupyter

scikit learn

https://github.com/scikit-learn/scikit-learn

…and many more!

interacting with the community

- mailing list

  - https://mail.scipy.org/mailman/listinfo/numpy-discussion

- chat room

  - https://gitter.im/numpy/numpy

- github repository (code, issues, pull requests)

  - https://github.com/numpy/numpy

the no-worfklow workflow

github.com/<you>/<your_repo>

you on your laptop

the no-worfklow workflow

git clone https://github.com/<you>/<your_repo>.git

github.com/<you>/<your_repo>

git pull

git push

you on your laptop

the no-worfklow workflow

github.com/numpy/numpy

you on your laptop
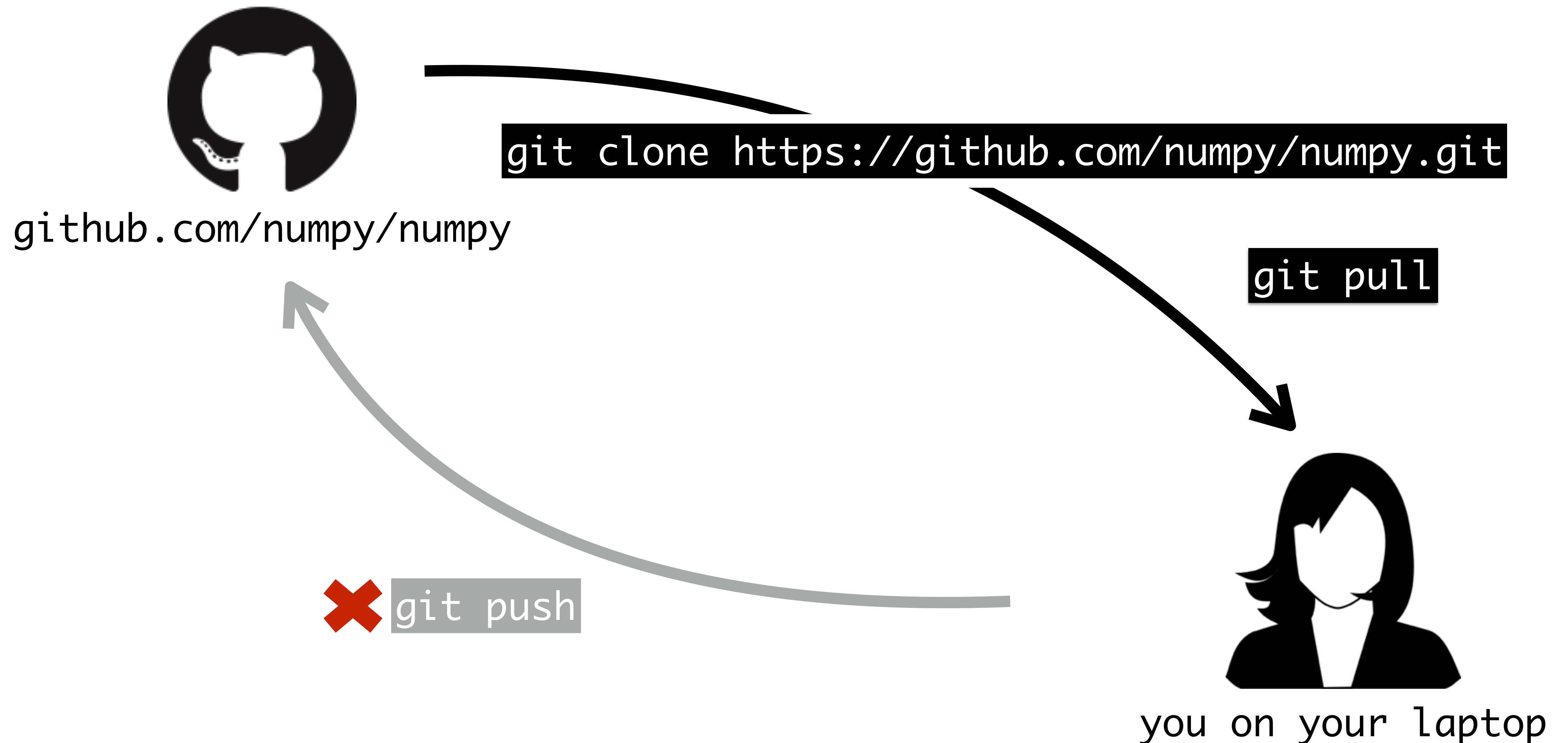
the no-worfklow workflow

github.com/numpy/numpy

`git clone https://github.com/numpy/numpy.git`

`git pull`

you on your laptop

the no-worklow workflow

github.com/numpy/numpy

`git clone https://github.com/numpy/numpy.git`

`git pull`

❌ `git push`

you on your laptop

the forking workflow - setup

github.com/numpy/numpy

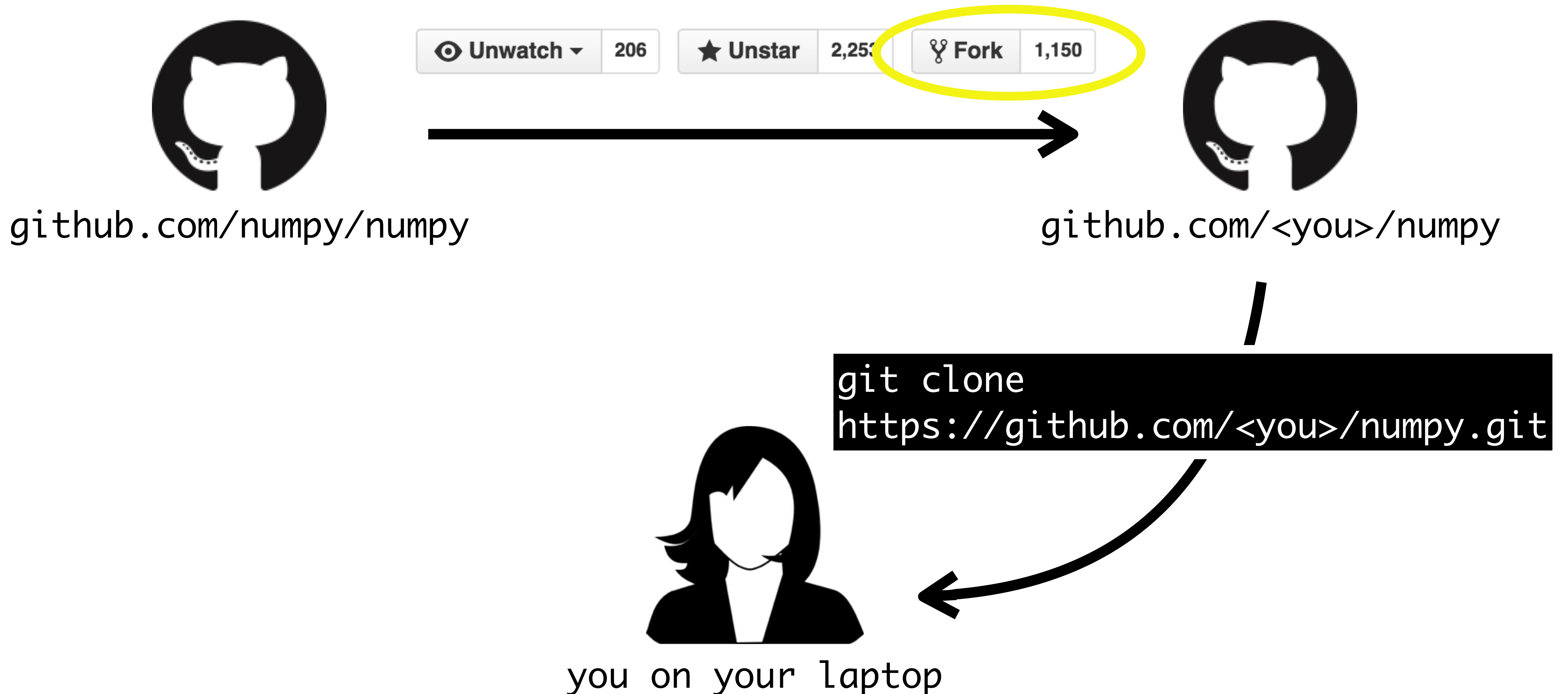you on your laptop

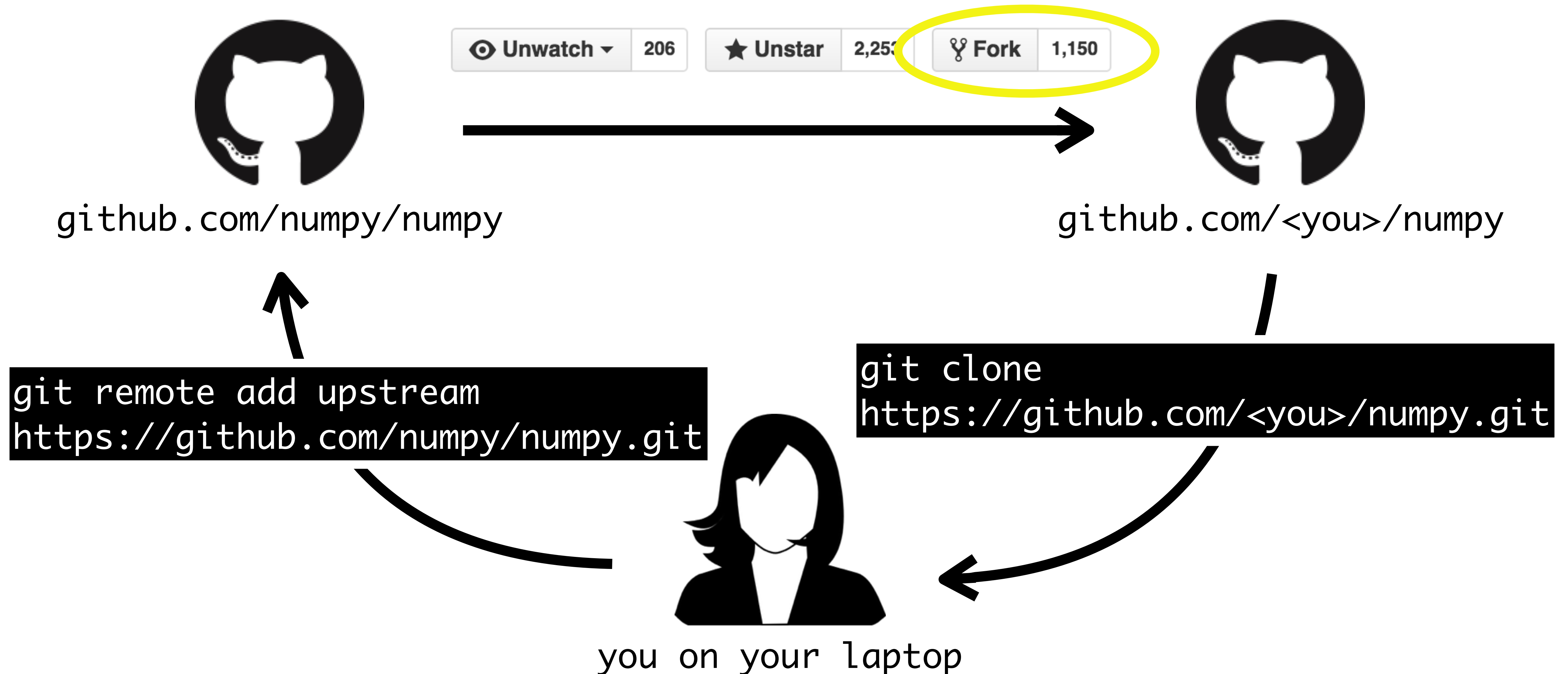# the forking workflow - setup

github.com/numpy/numpy

github.com/<you>/numpy

you on your laptop

the forking workflow - setup

github.com/numpy/numpy

github.com/<you>/numpy

```
git clone
https://github.com/<you>/numpy.git
```

you on your laptop

the forking workflow - setup

github.com/numpy/numpy

⊙ Unwatch ▼ 206   ★ Unstar 2,25   ⑂ Fork 1,150

github.com/<you>/numpy

git remote add upstream
https://github.com/numpy/numpy.git

git clone
https://github.com/<you>/numpy.git

you on your laptop

the forking workflow - pulling

upstream

origin

you on your laptop

the forking workflow - pulling
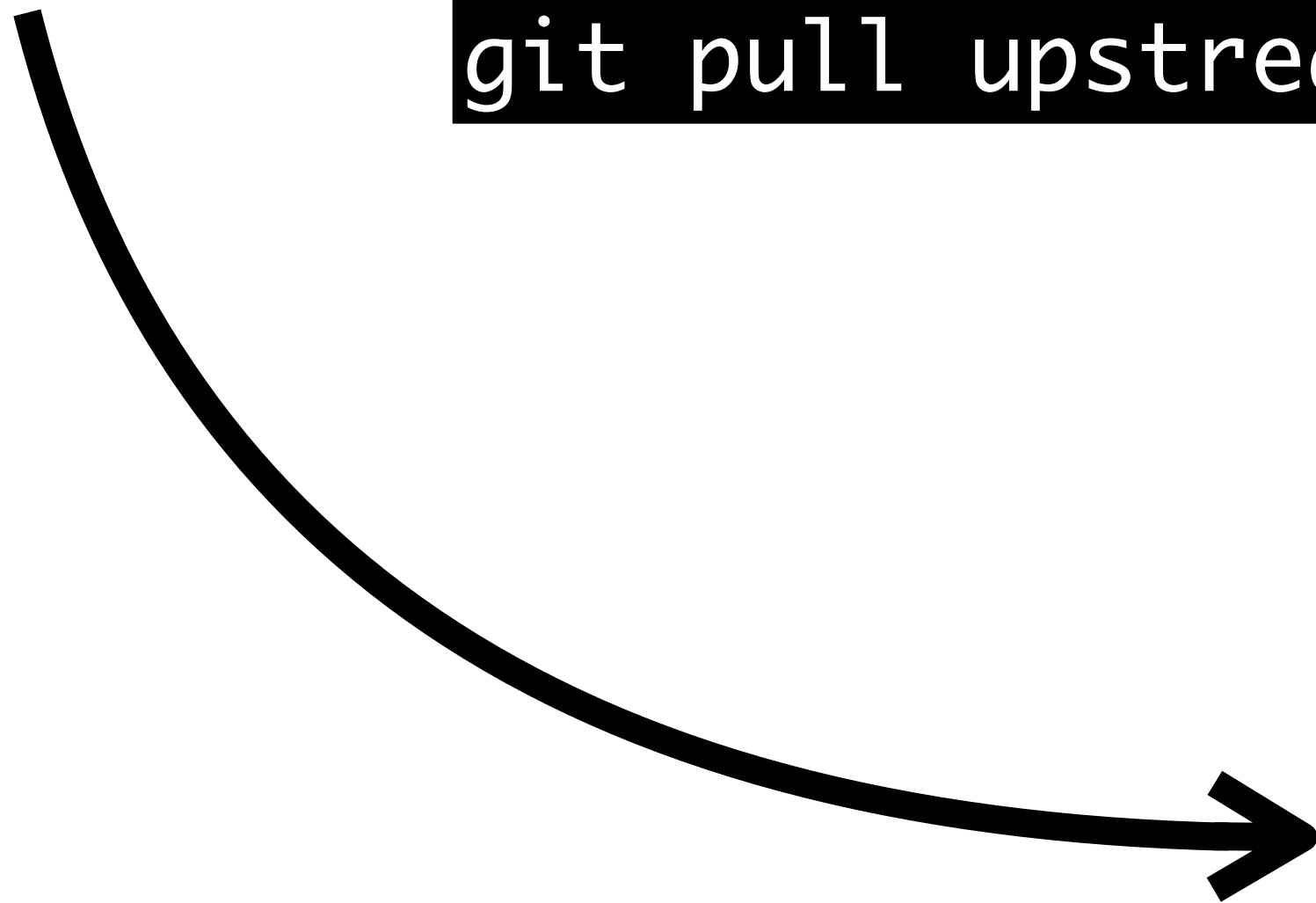
upstream

origin

`git checkout master`

`git pull upstream/master`
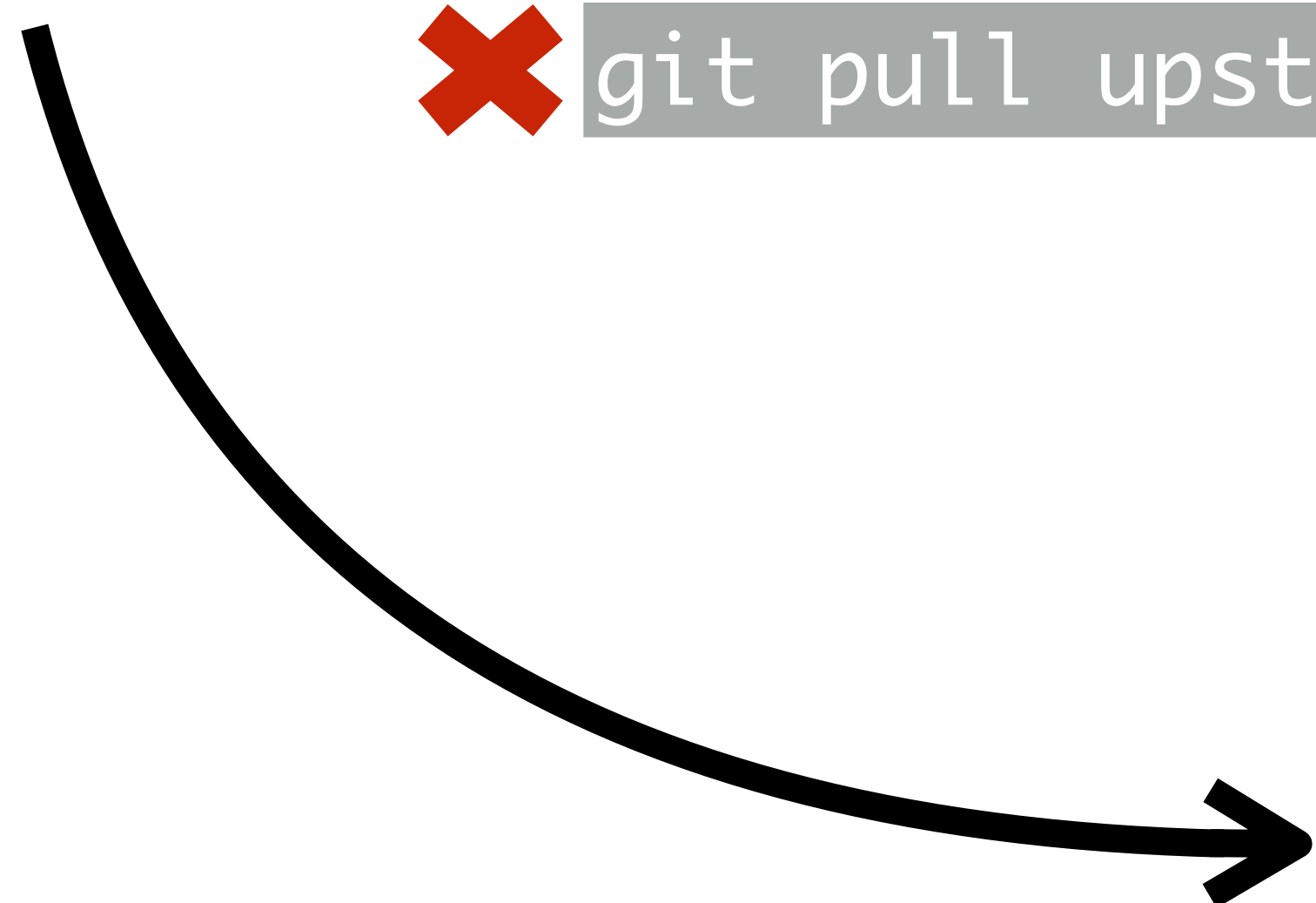
you on your laptop

the forking workflow - pulling

upstream

origin

`git checkout master`

❌ `git pull upstream/master`

you on your laptop

the forking workflow - pulling

upstream

origin

`git checkout master`

`git fetch upstream`

`git merge upstream/master --ff-only`

you on your laptop

the forking workflow - pulling

upstream

origin

`git checkout master`

`git fetch upstream`

`git rebase upstream/master`

you on your laptop

the forking workflow - pulling

upstream

origin

`git checkout master`

`git fetch upstream`

`git rebase upstream/master`

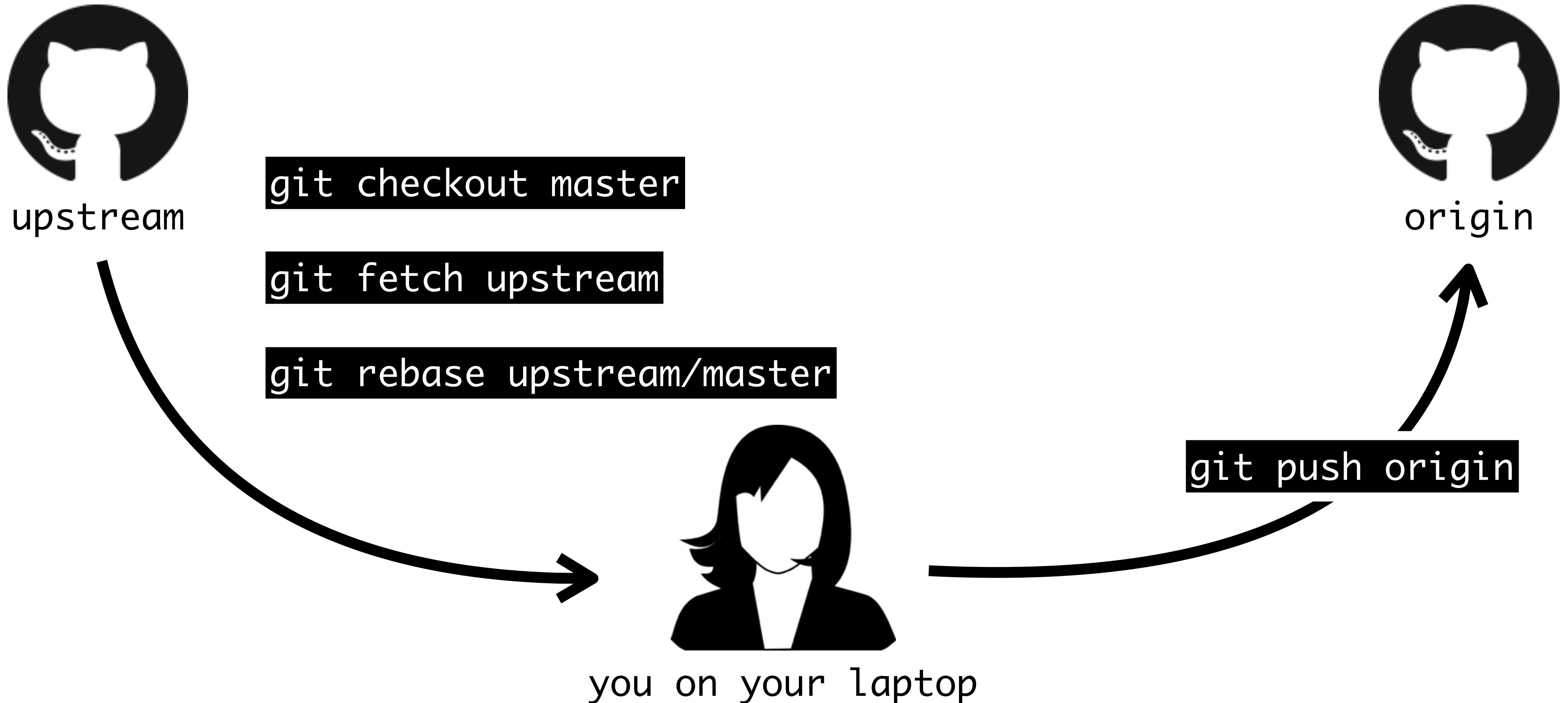`git push origin`
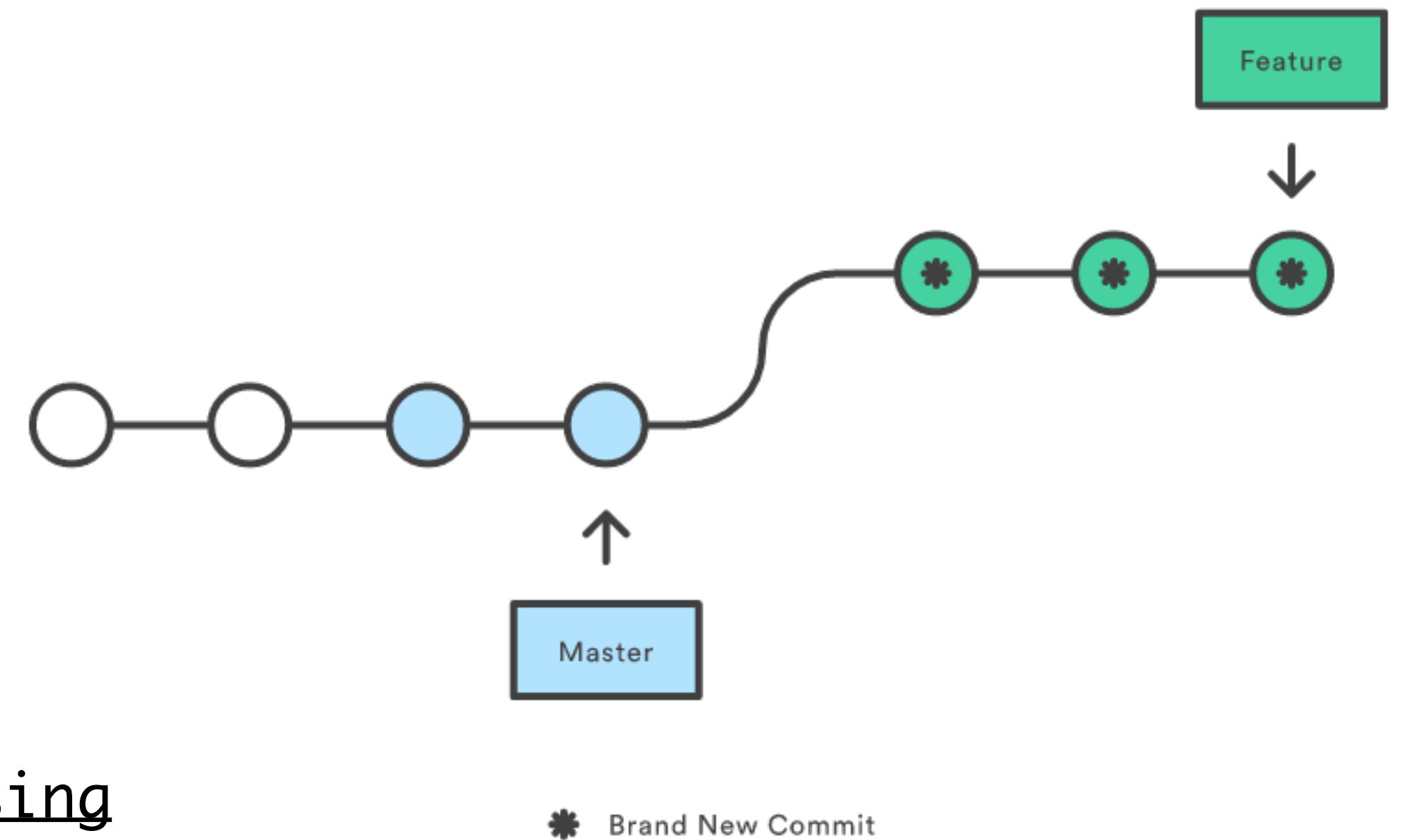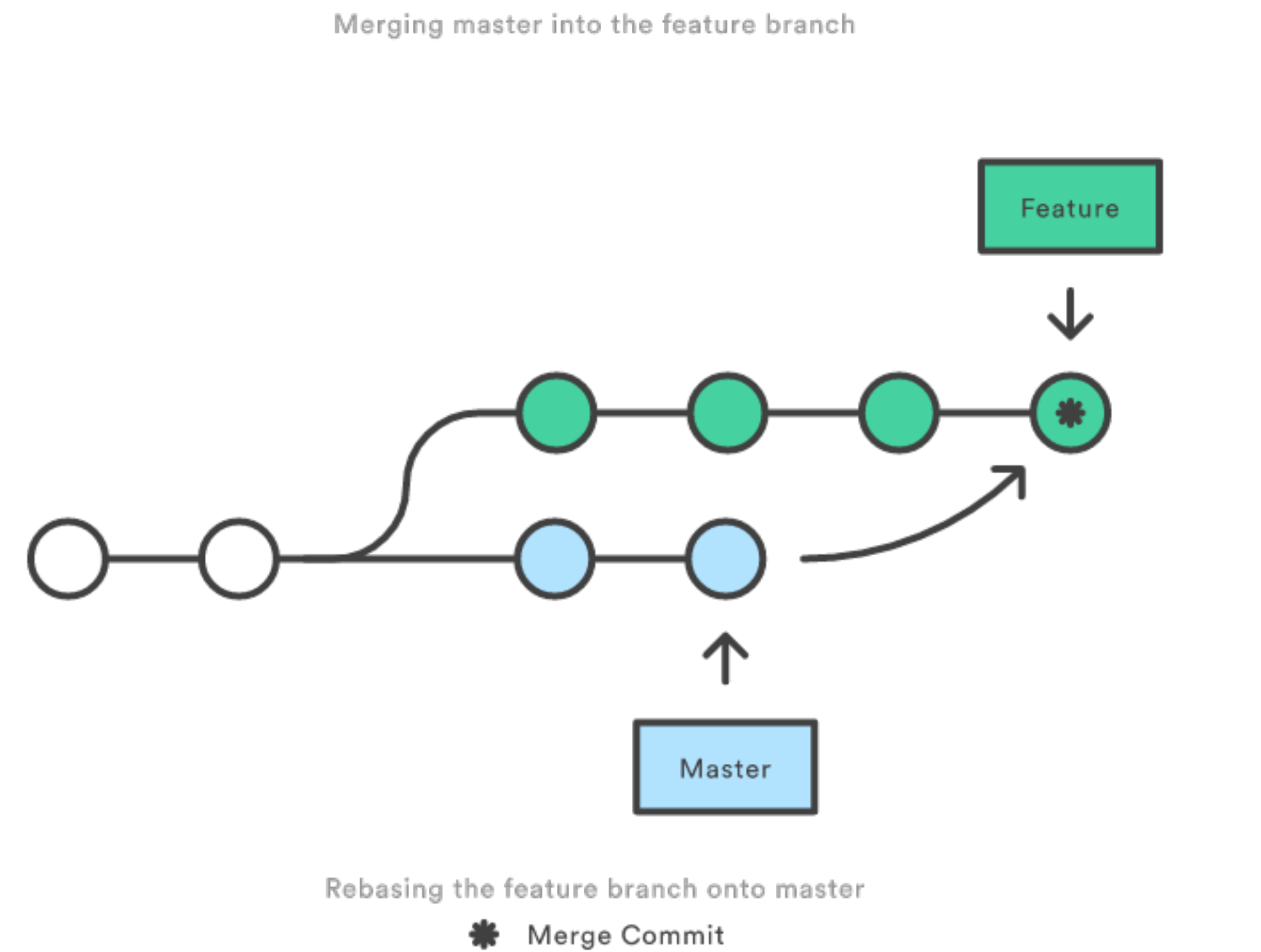
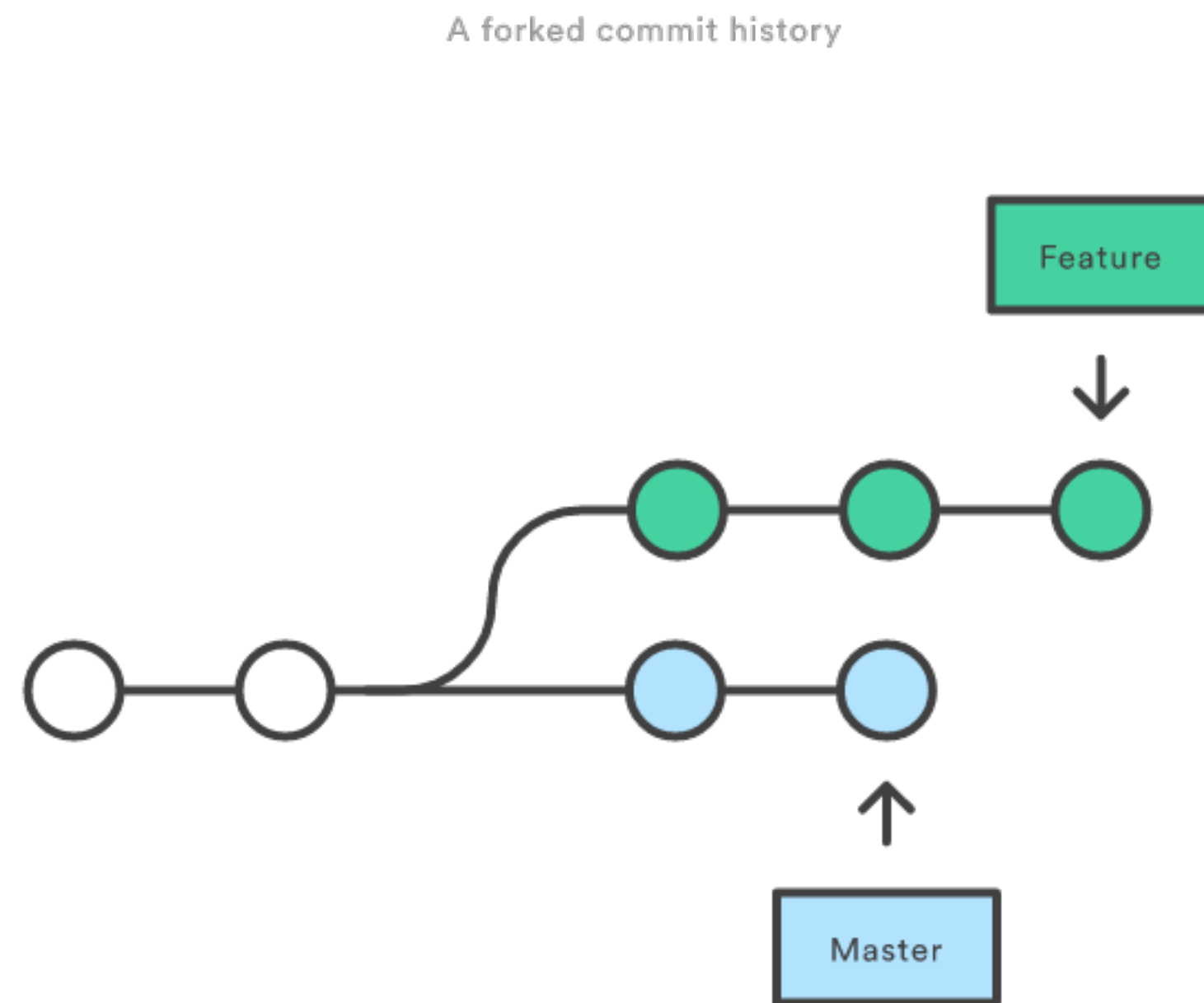you on your laptop

merging vs. rebasing

Feature

Master

Merge Commit

A forked commit history

Feature

Master

Rebasing the feature branch onto master

Merge Commit

Feature

Master

Brand New Commit

https://www.atlassian.com/git/tutorials/merging-vs-rebasing

building and running the tests

- build the project

  ```
  python setup.py build
  ```


- install it

  ```
  python setup.py install
  ```


- run the tests

  ```
  python runtests.py
  ```

the forking workflow - pushing

upstream

origin

`git checkout master`

`git fetch upstream`

`git rebase upstream/master`

you on your laptop

the forking workflow - pushing

upstream

origin

`git checkout -b <new_branch> upstream/master`

`git checkout master`

`git push --set-upstream origin <new_branch>`

`git fetch upstream`

`git rebase upstream/master`

you on your laptop

the forking workflow - pushing

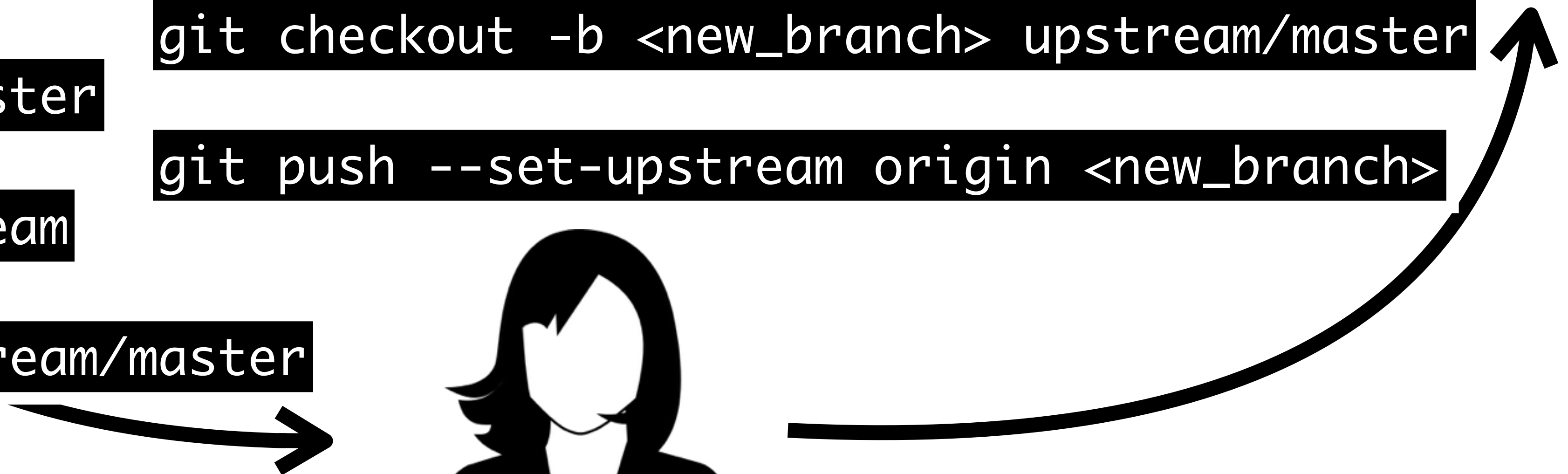

upstream

origin

git checkout master

git fetch upstream

git rebase upstream/master

git checkout -b <new_branch> upstream/master

git push --set-upstream origin <new_branch>

hack - hack - hack

git commit -a

git push origin

you on your laptop

writing the commit message

- First line summarizes commit, starts with one of:

  API: API change   **BLD**: build   **BUG**: bug fix
  DEP: deprecation   **DEV**: development utility
  DOC: documentation   **ENH**: enhancement
  MAINT: maintenance   **REV**: revert
  STY: style fix   **TST**: testing   **REL**: release

- Then a blank line, then more text if needed, break lines at 80 chars.

- Link to other pull requests or issues, e.g. "fixes #6724"

the forking workflow - pushing

Pull request Compare

upstream

origin

`git checkout -b <new_branch> upstream/master`

`git checkout master`

`git push --set-upstream origin <new_branch>`

`git fetch upstream`

`git rebase upstream/master`

`hack - hack - hack`

`git commit -a`

you on your laptop

`git push origin`

the forking workflow - rebasing

upstream

origin

`git checkout master`

`git fetch upstream`

`git rebase upstream/master`

you on your laptop

the forking workflow - rebasing

upstream

origin

`git checkout master`

`git fetch upstream`

`git rebase upstream/master`

`git checkout <new_branch>`

`git rebase master`
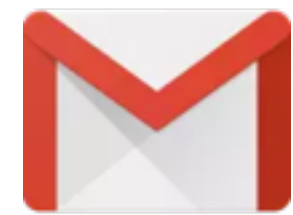
`git push origin`

you on your laptop

when in doubt, read the docs!

http://docs.scipy.org/doc/numpy/dev/gitwash/development_workflow.html

Thank you!

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jaimefrio

Jaime