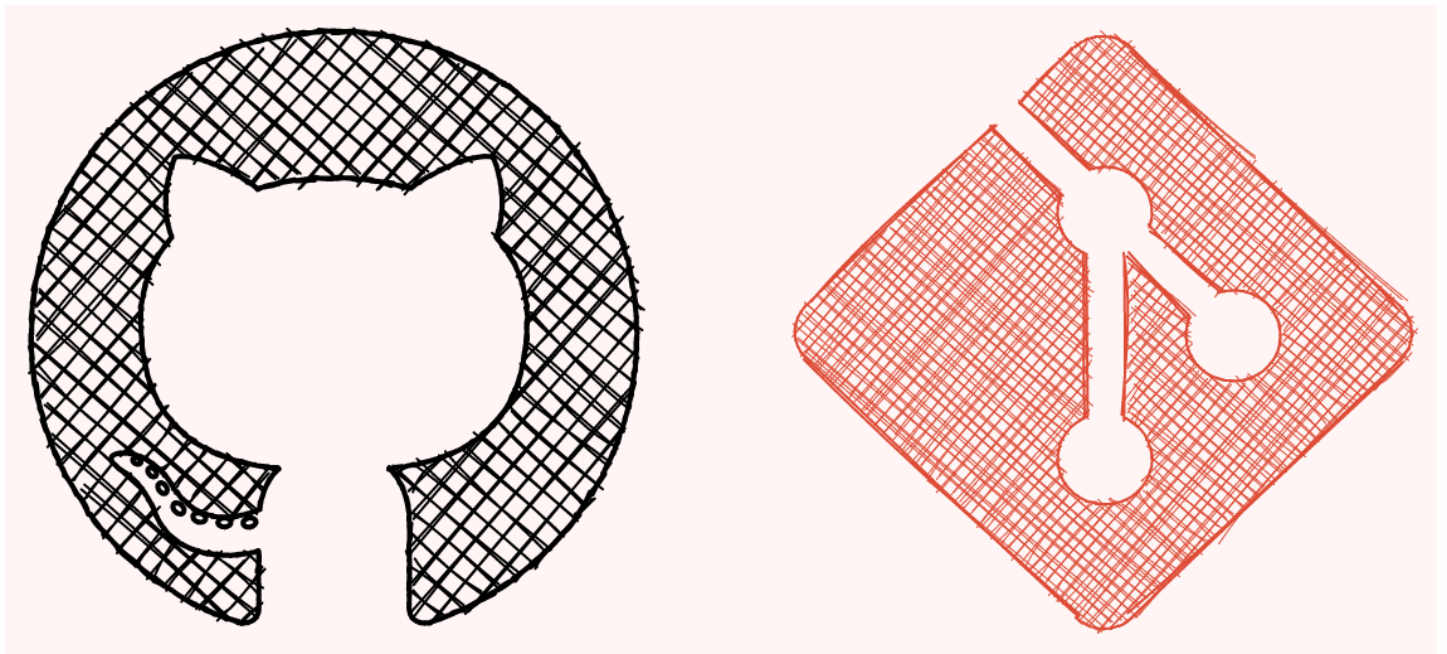


Efficient Python Tricks and Tools for Data Scientists - By Khuyen Tran

Git and GitHub

 [GitHub](#) [View on GitHub](#) [Book](#) [View Book](#)

This section shows some tricks and tools to work with Git and GitHub.



GitHub CLI: Brings GitHub to Your Terminal

If you create a local folder before creating a GitHub repository for it, you might need to go to the GitHub website then create a new repository, then add a remote to your current folder. Is there any way that all of these steps could be done in the terminal in 1 line of code?

That is when GitHub CLI comes in handy. The code snippet below shows how to create a new Github repository in your local folder.

```
$ cd your_local_folder

# Create an empty local git repo
$ git init

# Create a new GitHub repo
$ gh repo create
```

With GitHub CLI, you can also manage your pull requests, issues, repositories, gists, and so much more! Check out GitHub CLI [here](#).

Pull One File from Another Branch Using Git

Pull the files from another branch into your branch can be messy. What if you just want to pull one file from another branch? You can easily to like that with the code snippet below:

```
# downloads contents from remote repository
$ git fetch

# navigate to another branch
$ git checkout

# adds a change in the working directory to the staging
area
$ git add

# captures the state of a project at that point in time
$ git commit
```

Now you just update one file in your branch without messing with the rest!

Download a File on GitHub Using wget

If you want to download a file on GitHub such as a csv file, instead of cloning the repo, simply use the code snippet above. For example, if the website the file you want to extract is <https://github.com/khuyentran1401/Data-science/blob/master/visualization/dropdown/population.csv>, type:

```
$ wget  
https://raw.githubusercontent.com/khuyentran1401/Data-  
science/master/visualization/dropdown/population.csv
```

Now the data is in your directory!

github1s: Read GitHub Code with VS Code on your Browser in One Second

Syntax highlighting in VS Code makes it easy for you to understand the source code. Is there a way that you can read GitHub code with VS Code in 1 second?

Yes, there is. Simply replace ...

`github.com/yourname/repository` with
`github1s.com/yourname/repository`

... to view Github with VS Code. It should show up like below.

The screenshot shows a web browser window with a code editor. The browser's address bar displays the URL `github1s.com/khuyentran1401/dog_classifier/blob/HEAD/do...`. The browser's tab bar includes links to `github`, `Python Assess...`, `WhatsApp`, `Data Simplified`, `Astral`, `Medium`, and `Notion`. The code editor interface features a sidebar on the left with an `EXPLORER` panel showing the file structure of the `DOG_CLASSIFIER` project, including `images`, `.gitignore`, `dog_classifier.py`, `dog.pkl`, `README.md`, `requirements.txt`, and `train_dog_classifier.ipynb`. The main editor area displays the `dog_classifier.py` file, which contains the following Python code:

```
1 from fastai.vision.widgets import *
2 from fastai.vision.all import *
3
4 from pathlib import Path
5
6 import streamlit as st
7
8 class Predict:
9     def __init__(self, filename):
10         self.learn_inference = load_learner(Path()/filename)
11         self.img = self.get_image_from_upload()
12         if self.img is not None:
13             self.display_output()
14             self.get_prediction()
15
16     @staticmethod
17     def get_image_from_upload():
18         uploaded_file = st.file_uploader("Upload Files", type="image")
19         if uploaded_file is not None:
20             return PILImage.create(uploaded_file)
21         return None
22
23     def display_output(self):
24         st.image(self.img.to_thumb(500, 500), caption='Uplo
```

The status bar at the bottom of the editor indicates the current position is `Ln 28, Col 34`, with `Spaces: 4`, `UTF-8` encoding, `Python` language, and `Layout: us`.

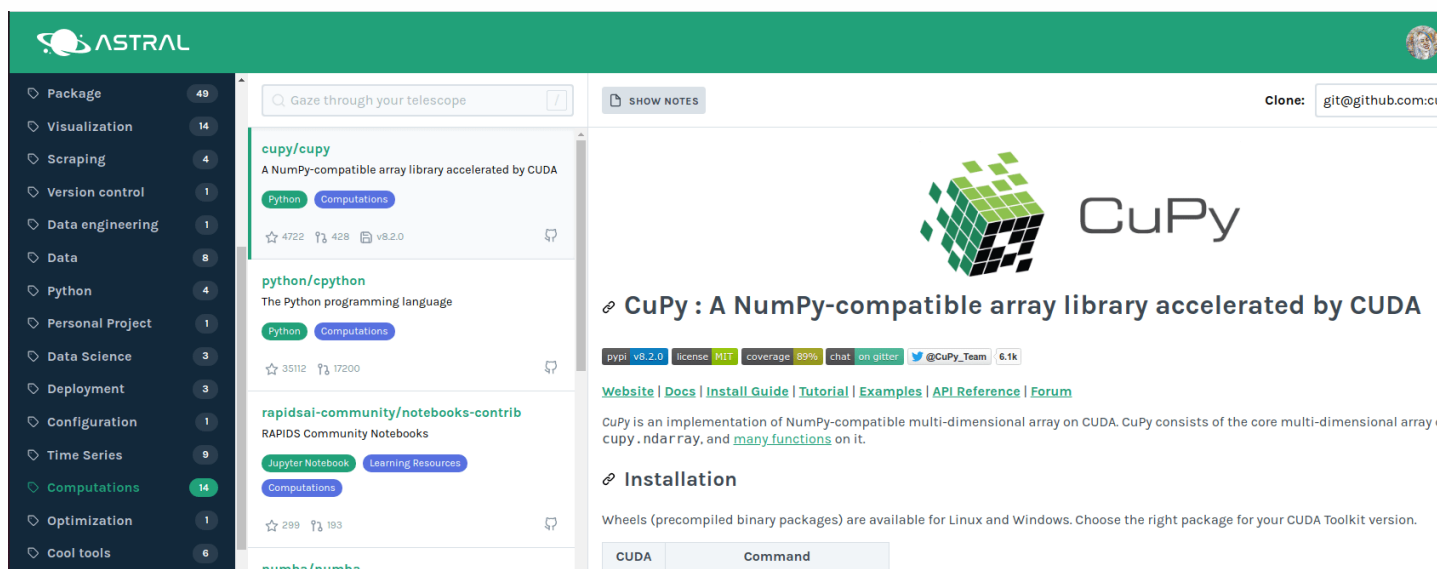
Here is an example.

Astral: Organize Your GitHub Stars with Ease

I have been sharing many tools and you might not be able to keep up with them. To save and organize the tools you discovered on GitHub, you can use Astral.

With Astral, you can organize my starred GitHub repositories like below.

I have been using this for months, and it is super quick when I want to find the right tool for my project.



[Link to Astral.](#)

pip install -e: Install Forked GitHub Repository Using Pip

Sometimes, you might fork and make some changes to the original GitHub repository. If you want others to install your forked repo, use

```
pip install -e  
git+https://github.com/username/package.git#egg=package.
```

The code below shows how to install the forked repo of NumPy.

```
$ pip install -e  
git+https://github.com/khuyentran1401/numpy.git#egg=num  
py
```