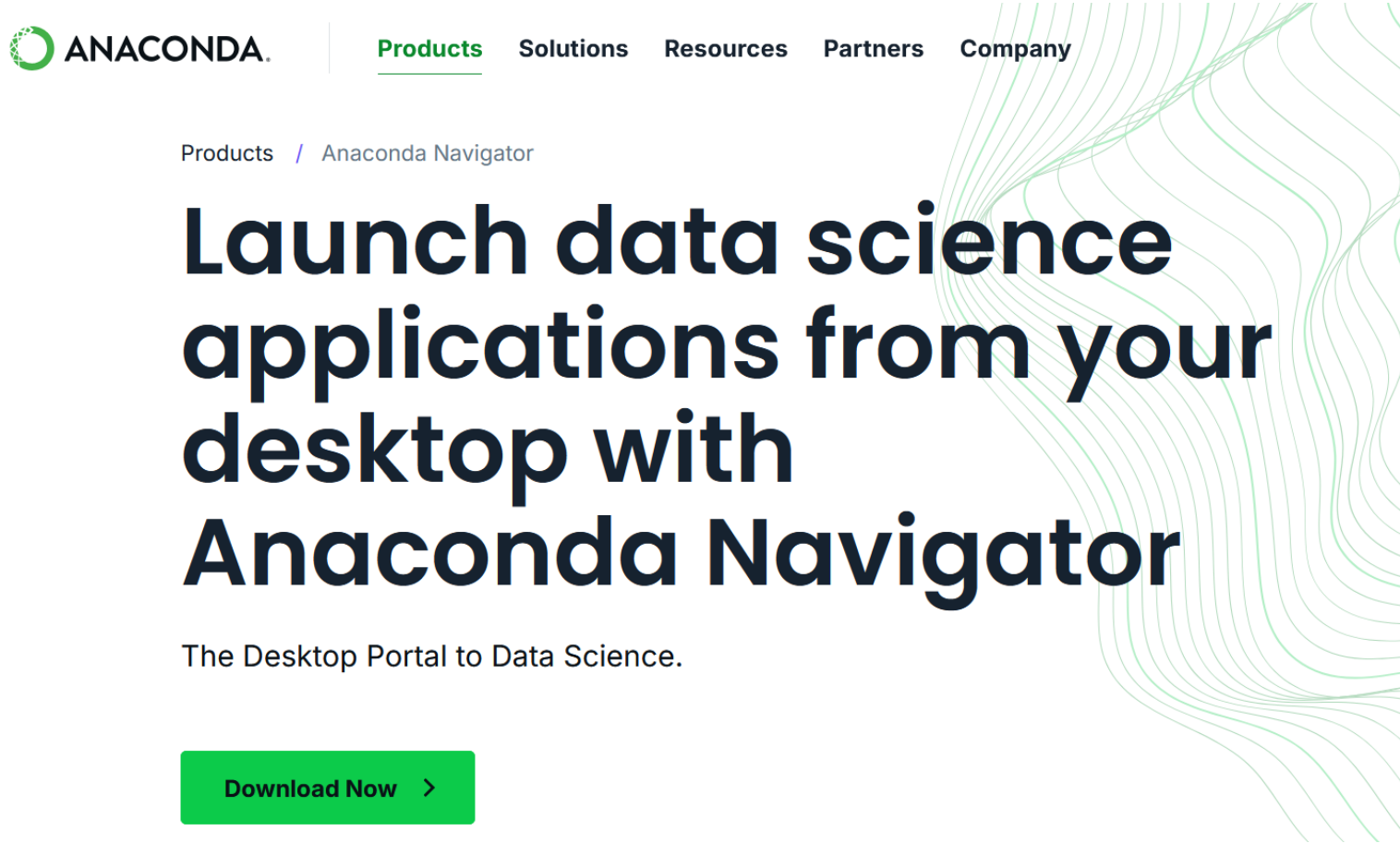
Installing Anaconda + adding Python libraries

Python workshop

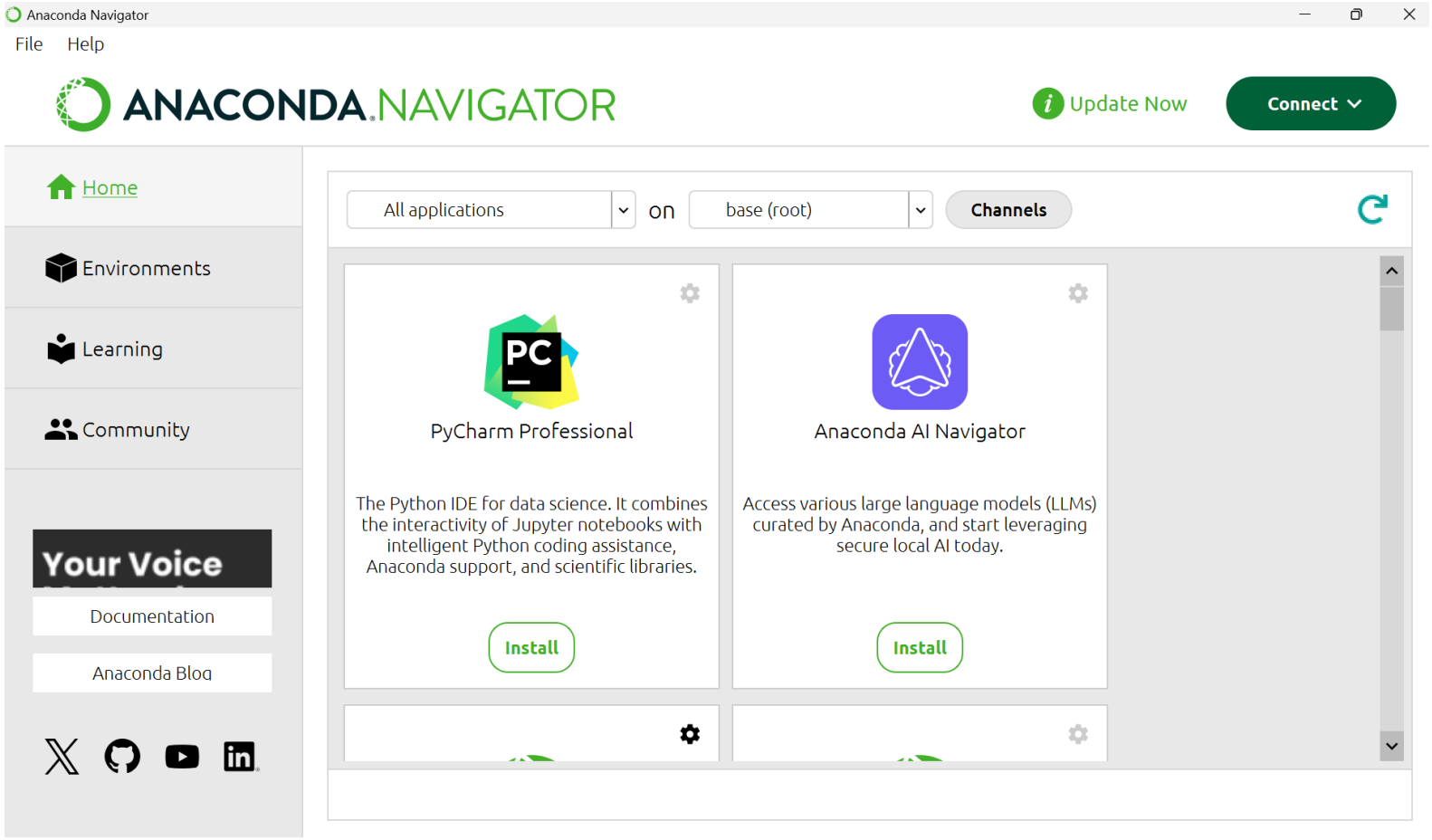
Winter 2025

Go to this link and download Anaconda navigator, it’s free!

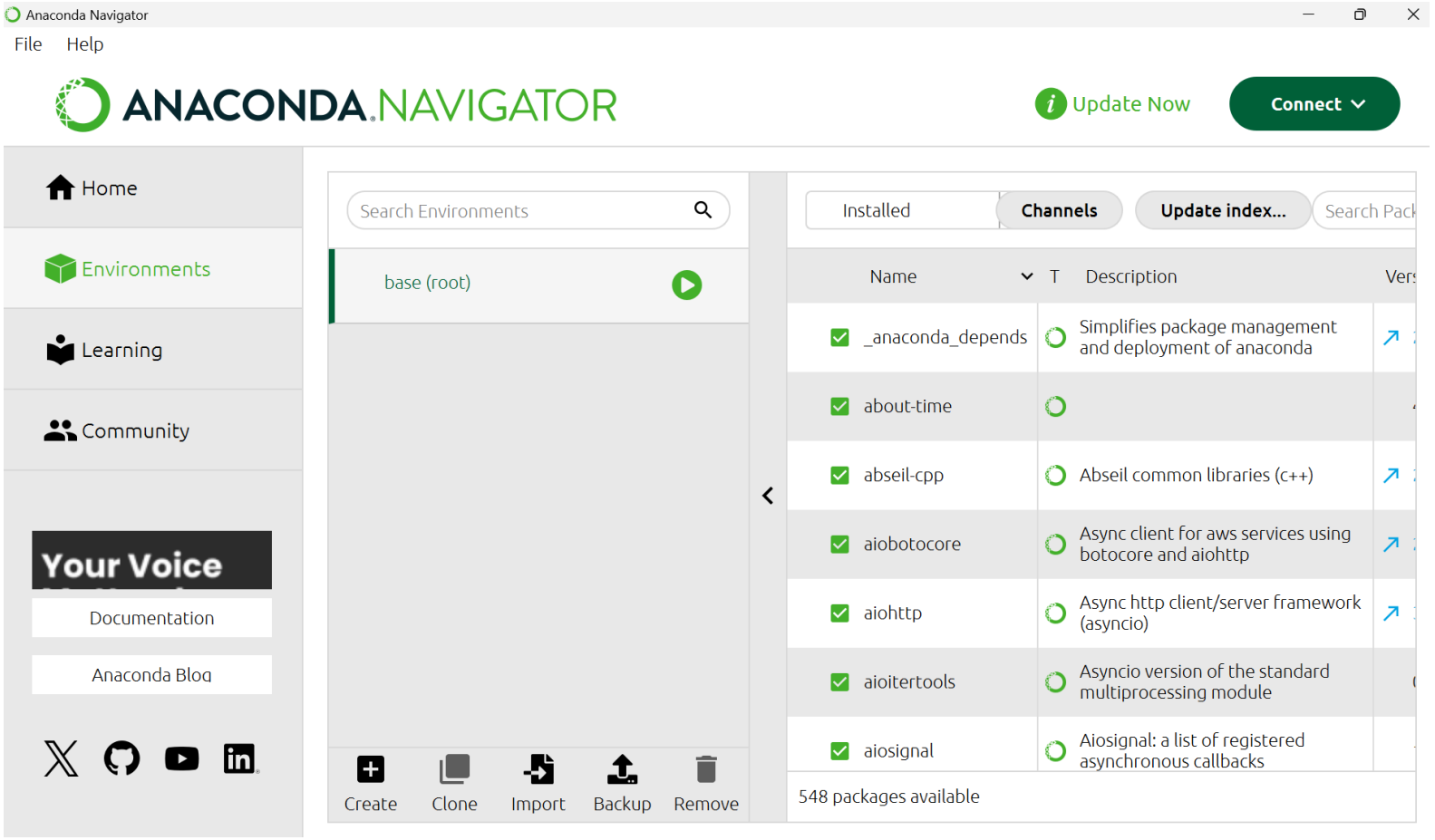


This is the software we will use to write and execute Python scripts

When you open the application, it should look like this:

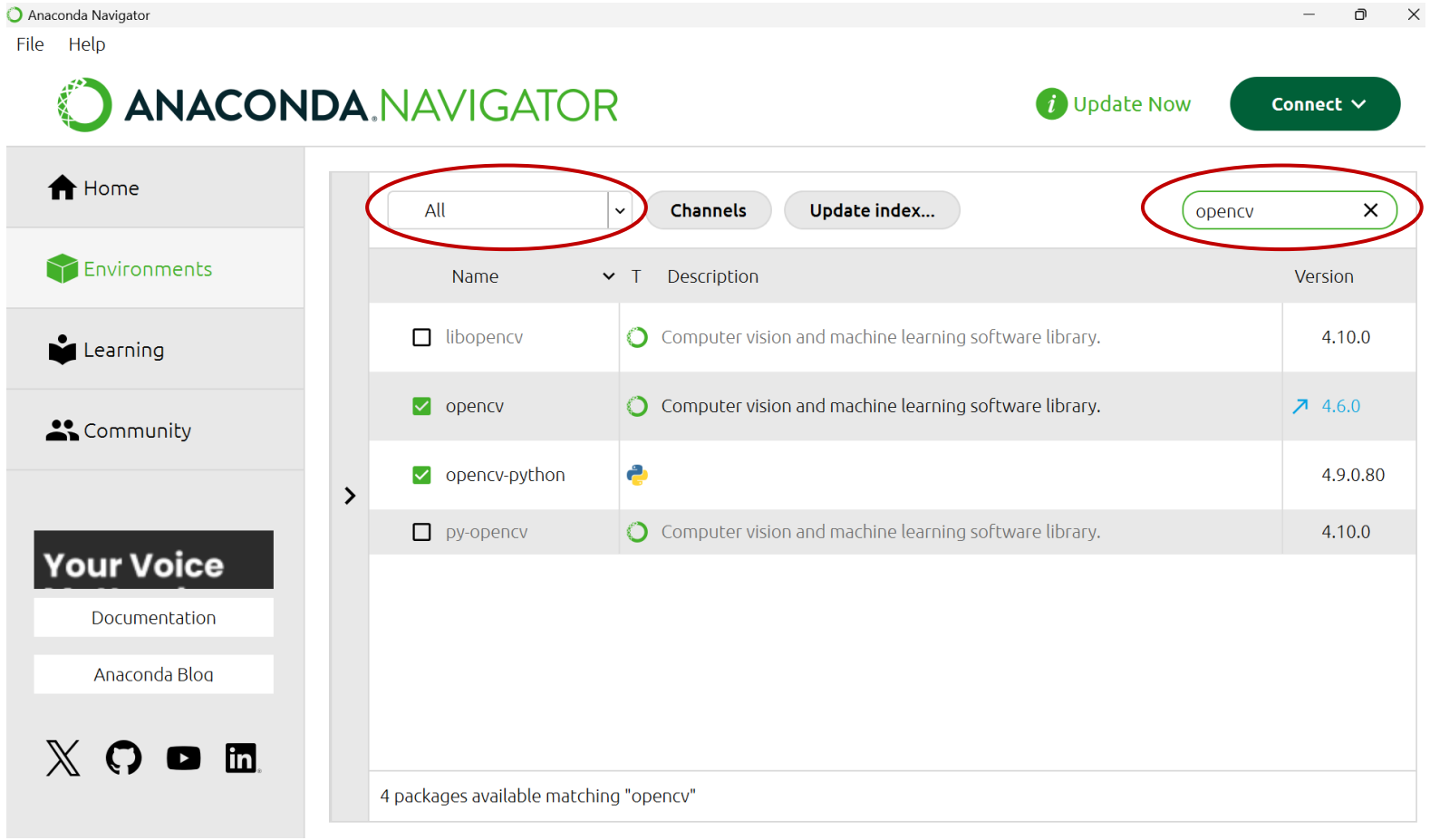


To download Python libraries, navigate to the “Environments” tab

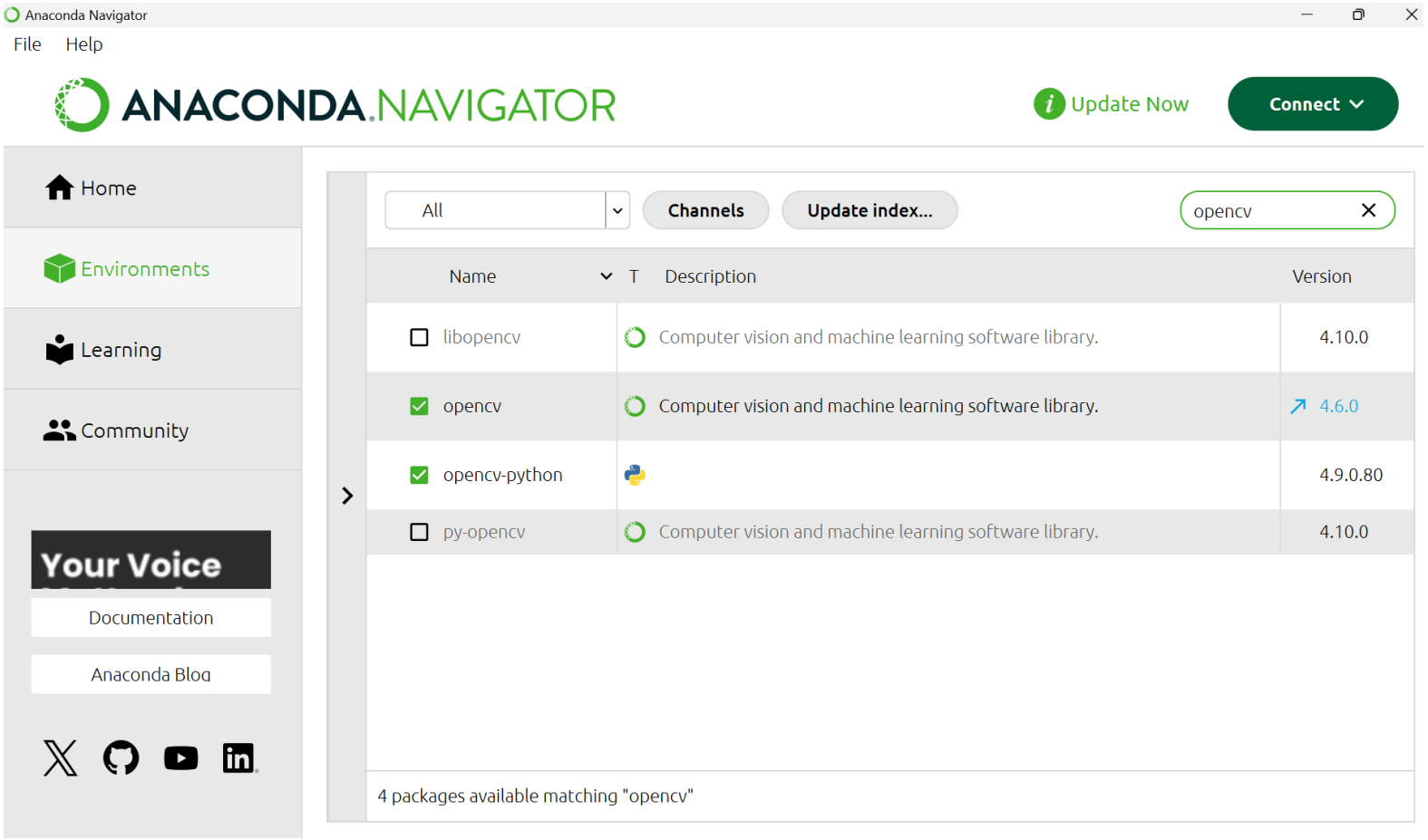


Make sure you have selected the “base (root)” environment before you start downloading things

Change the drop-down option to show “All” libraries and then search for the name of the library you would like to download:



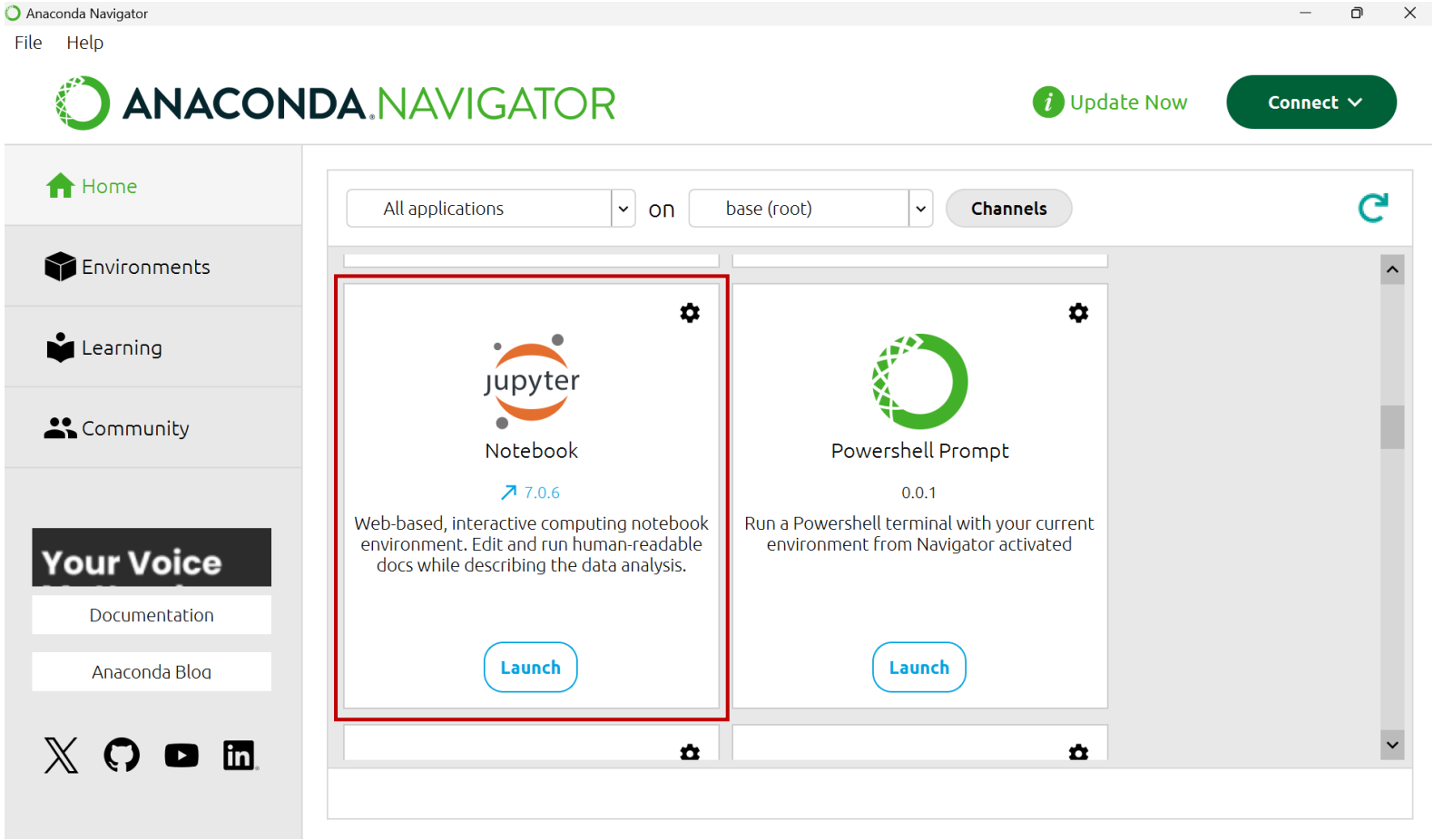
If the library you want does not appear here as a downloadable option, we will need to download it via the command line using the “**conda install**” command



For this workshop, please make sure you install (some may already be installed):

- matplotlib
- numpy
- scipy
- pandas
- opencv
- cv2
- skimage

For this workshop, we will be using Jupyter notebook, which you can launch from the home page:

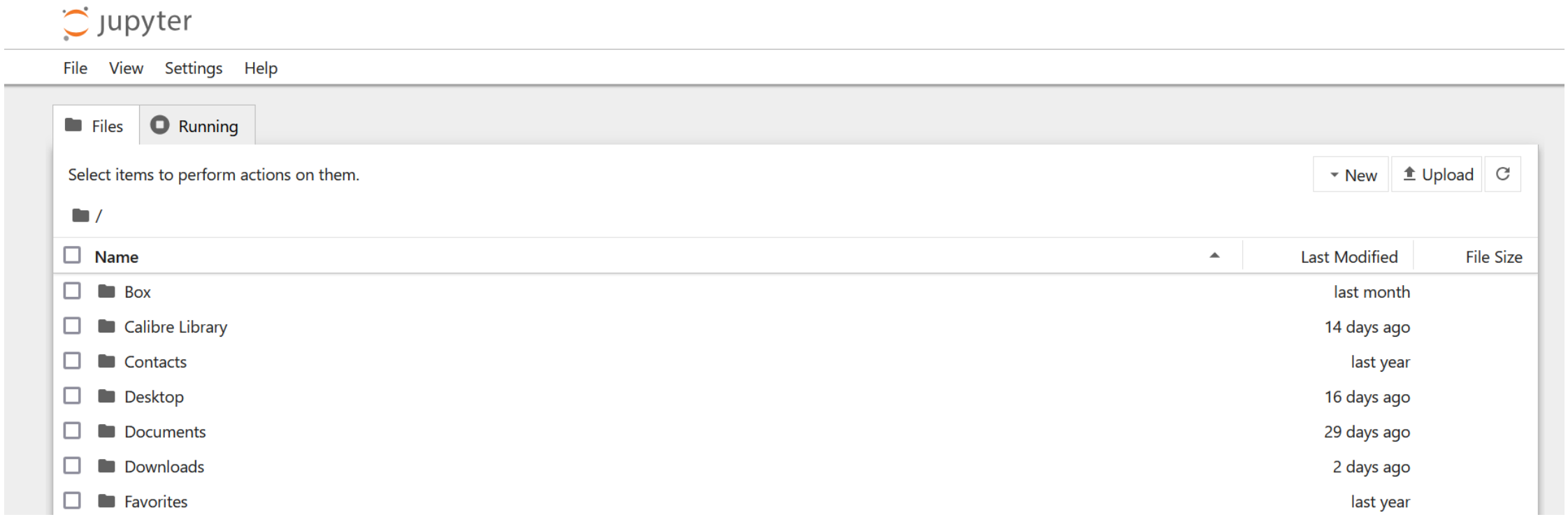


Spyder is another good option that is available in Anaconda

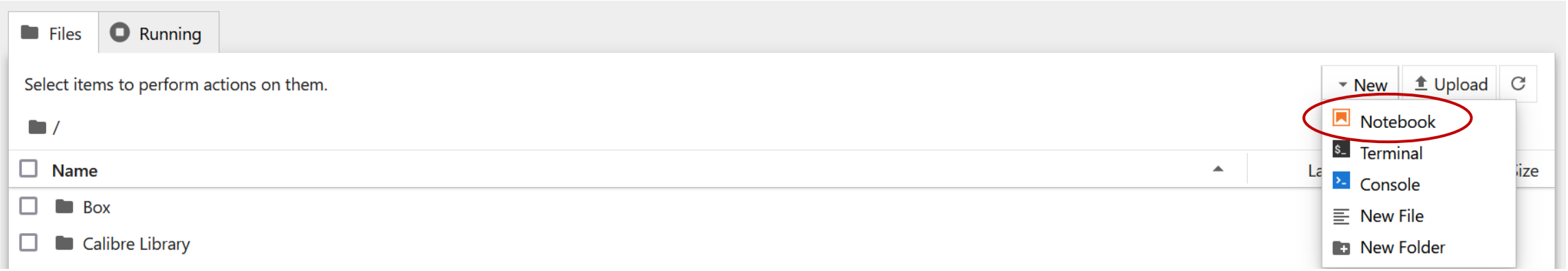
Spyder

Launching Jupyter should open a web-browser window with a list of directories on your computer

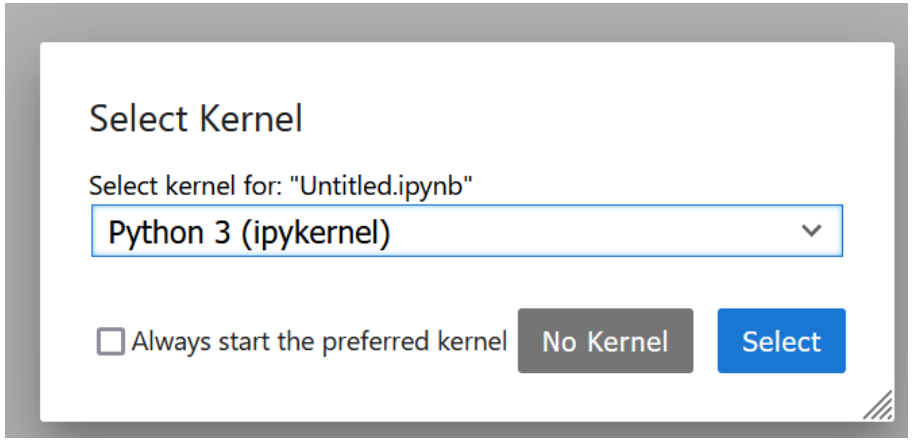
Create a designated folder for your Python files here



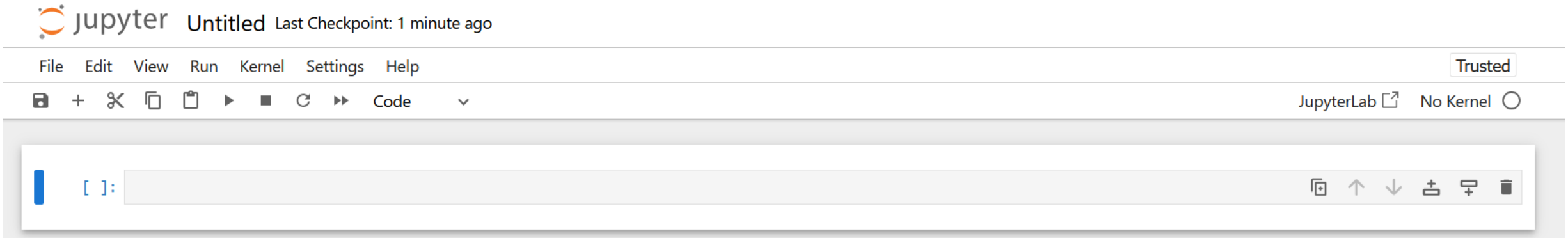
Once you have opened the folder, click ‘New’ and create a new notebook



Make sure Python 3 is selected



This is where the magic happens! Make sure to save often



Your first cell should include all your library import commands like so:

```
[3]: import matplotlib.pyplot as plt
     import numpy as np
```

To run a cell of code, hit **Shift+Enter** (on a PC)

Misc tips

- When the cell number says [*], this means the cell is actively running and has not completed its operation
- When [*] becomes a number, this marks the order in which you have executed your cells---order matters!
  - E.g. This is OK:

```
[1]: import matplotlib.pyplot as plt
     import numpy as np

[2]: # imagine a command that uses matplotlib here
```

  - But this will not work:

```
[ ]: import matplotlib.pyplot as plt
     import numpy as np

[3]: # imagine a command that uses matplotlib here
```

Misc tips

- If your code is stuck or running too long, you can force it to quit by clicking: