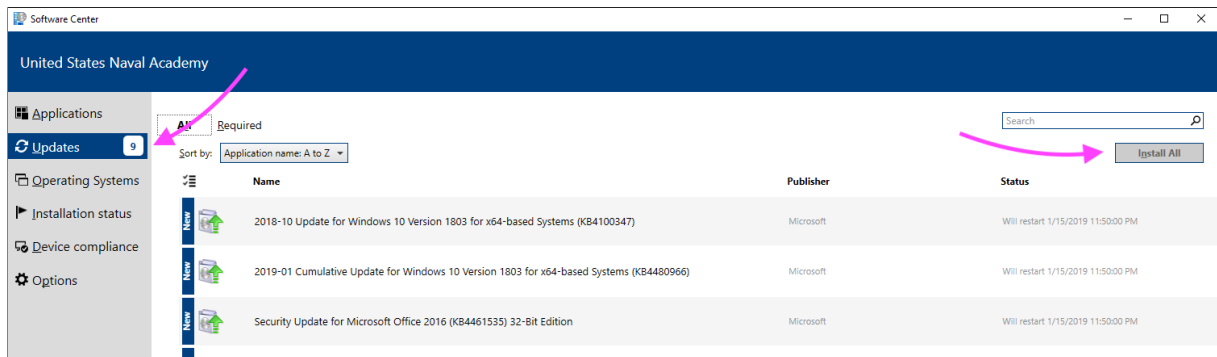# Getting Started with Anaconda and Jupyter

If you've already installed Anaconda, skip to Section 2.

0   Getting your computer ready

- First, let's make sure your computer has all the required software updates, in order to minimize the potential for issues when installing Anaconda.

- To get to Software Center, first click on ⊞ in the bottom left corner of your screen, and type software. That should bring up a link to the Software Center app. Click on this link.

- Once Software Center is open, go to the Updates tab and click Install All at the top right corner (see the image below) to install all required updates.

- Once the updates have finished, restart your computer.

- **Optional but strongly, strongly suggested.** Make Google Chrome your default web browser, if it is not already. Follow the instructions for Windows 10 at the link below:

    https://support.google.com/chrome/answer/95417

1   Installing Anaconda

- In this course, we will use the Anaconda Python distribution

- To install Anaconda, carefully follow the instructions below!

    - These instructions are based on the documentation found here:

        https://docs.anaconda.com/anaconda/install/windows/

Step 1. Download the Anaconda installer. Go to the following URL.

    https://www.anaconda.com/products/individual

Scroll down to the bottom of the page. You should select Windows, Python 3.8, 64-Bit Graphical Installer.

Step 2. Once the installer is downloaded, find it. Double-click on the installer to launch.

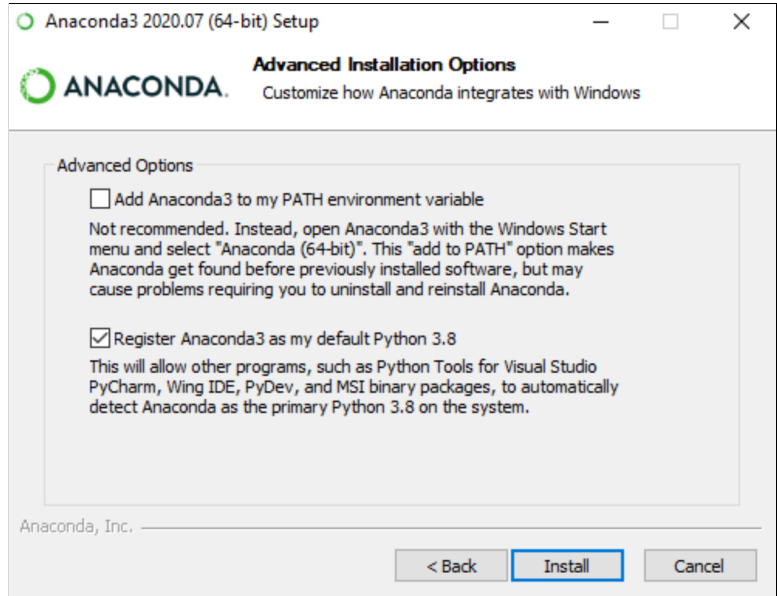**Step 3.** You should see a Welcome to Anaconda3 dialog box. Click Next .

Step 4. Read the licensing terms and click I Agree .

Step 5. Select Just Me (recommended) and click Next .

Step 6. Leave the default destination folder as-is and click Next .

Step 7. You should now see the dialog box on the right.

- Leave the first box unchecked: Do not add Anaconda to your system PATH environment variable. Adding Anaconda to the PATH environment variable can interfere with other software.

- Leave the second box checked: Register Anaconda as your default Python.
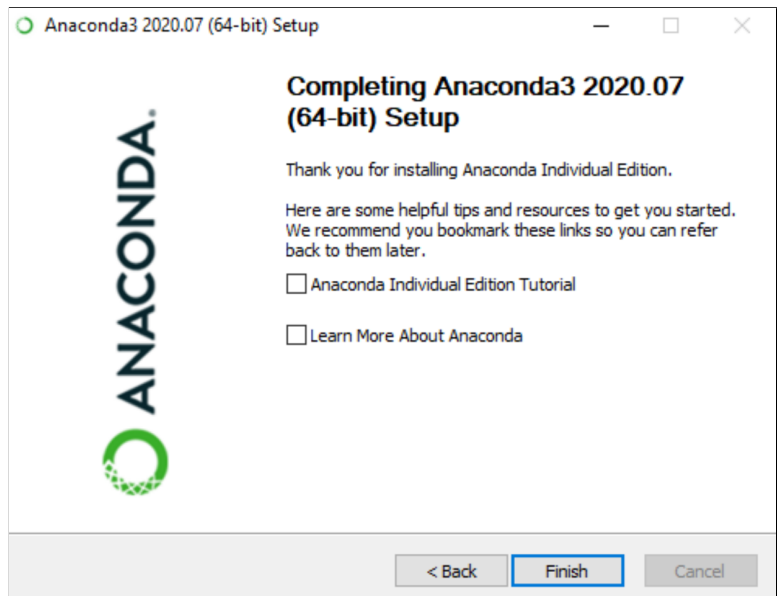
- Click the Install button.

Step 8. You should see a dialog box with a progress bar. This will take a while. When the progress bar is full, click Next .

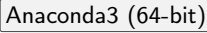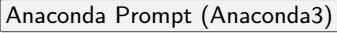**Step 9.** Ignore the message about JetBrains and PyCharm and click Next .

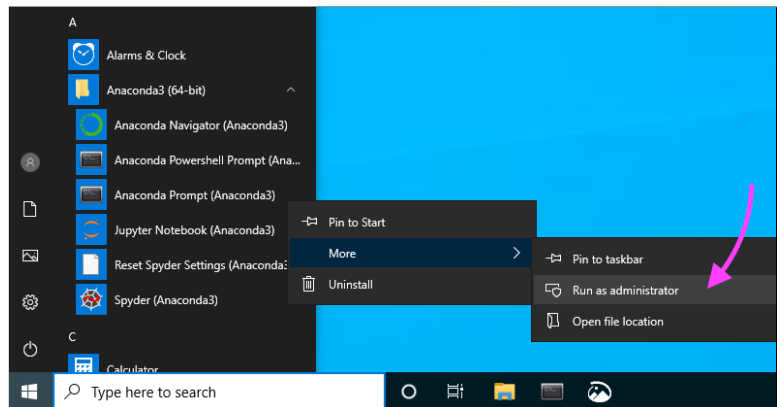**Step 10.** After a successful installation, you will see the dialog box shown on the right.

Uncheck the two boxes and click Finish to complete the installation.

2   Install and upgrade packages you'll need for this class

- Now that Anaconda is installed, let's install and upgrade some additional packages that you will need for this class.

Step 1. Click on ▦ in the lower left corner of your screen. Then click on Anaconda3 (64-bit) and right-click on Anaconda Prompt (Anaconda3). Select More » Run as administrator. See the image to the right.

Step 2. A terminal window titled Administrator: Anaconda Prompt (Anaconda3) should now be open on your machine.

At the prompt, type the following and press Enter:

```
conda update pandas
```

You will see the conda package installer solve the environment.

Step 3. The conda package installer will then ask you if you want to proceed. Type y and press Enter. The conda package installer will then download and complete updating the package.

Step 4. At the prompt, type the following and press Enter:

```
conda install -c conda-forge altair vega_datasets
```

You will see the conda package installer solve the environment.
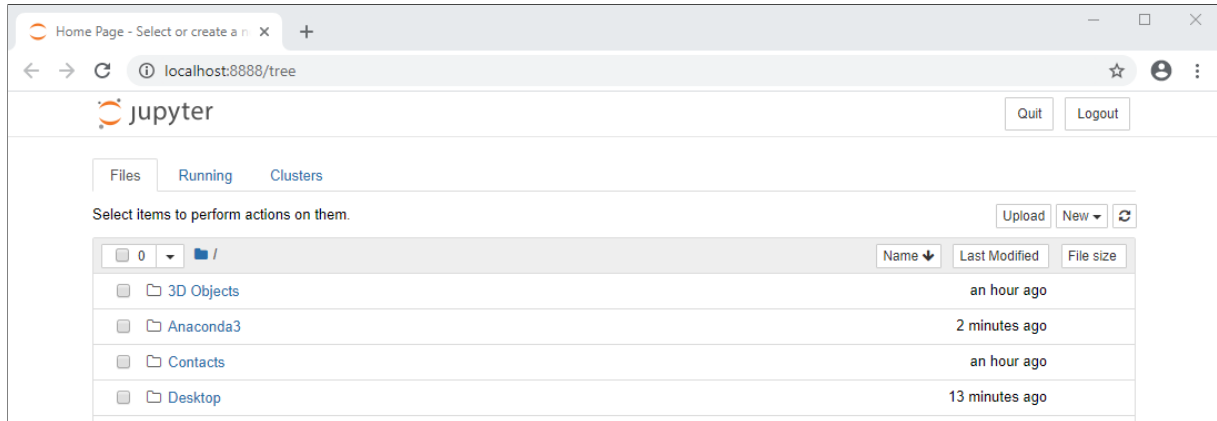
Step 5. The conda package installer will then ask you if you want to proceed. Type y and press Enter. The conda package installer will then download the packages and complete the installation.

Step 6. Close the terminal window.

If you're familiar with launching Jupyter, skip to Section 4.

3 Launching Jupyter

- We will be writing Python code in **Jupyter**. Let's open Jupyter.

- First, click on ⊞. Then click on Anaconda3 (64-bit) ⟩ Jupyter Notebook (Anaconda3).

- A terminal window titled Jupyter Notebook (Anaconda3) should appear. Just leave this open while you use Jupyter. In addition, your default web browser should open with the Jupyter file browser. It should look like this:

If you're familiar with downloading and opening Jupyter notebooks in zip files, you're done!
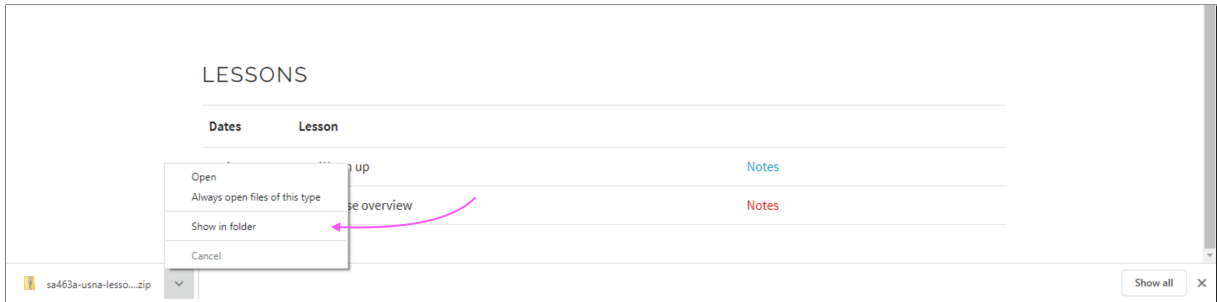
4 Downloading and opening Jupyter notebooks in zip files

- The course website is here:

  https://www.usna.edu/users/math/uhan/sa463a/

- You will need to regularly download Jupyter notebooks from the course website and open them in Jupyter. Follow these instructions to download Lesson 0. These instructions assume you're using Google Chrome as your web browser.
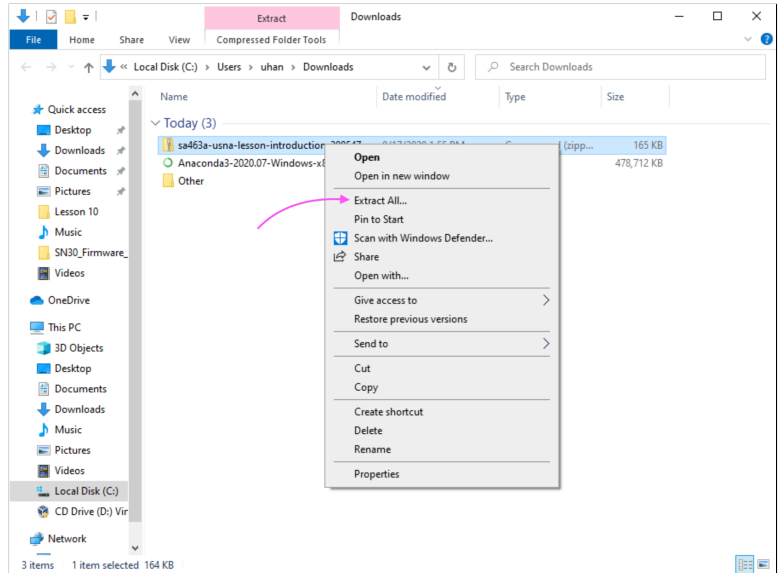
Step 1. Start by clicking the link for the Jupyter notebook you want to use. On the course website, these are labeled with zip (for a zip file). You'll see the file download appear at the bottom of the window.
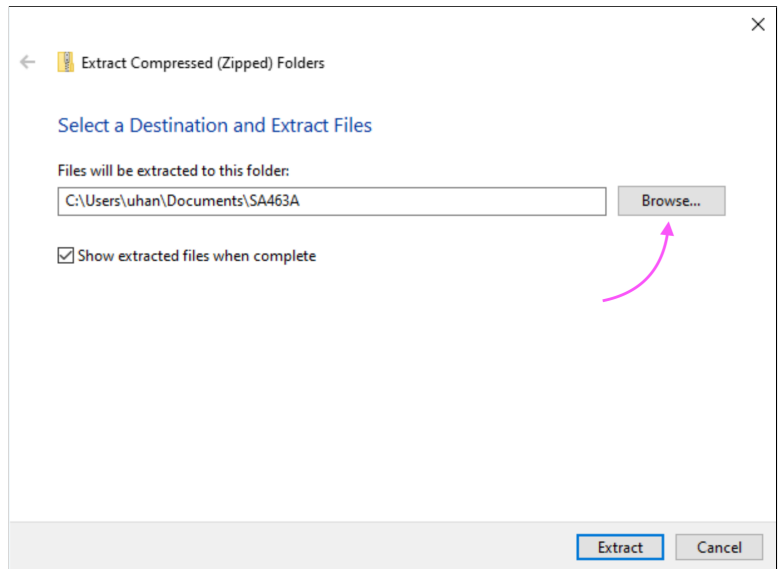
Step 2. Click on the arrow next to the file download, and select $\boxed{\text{Show in Folder}}$.
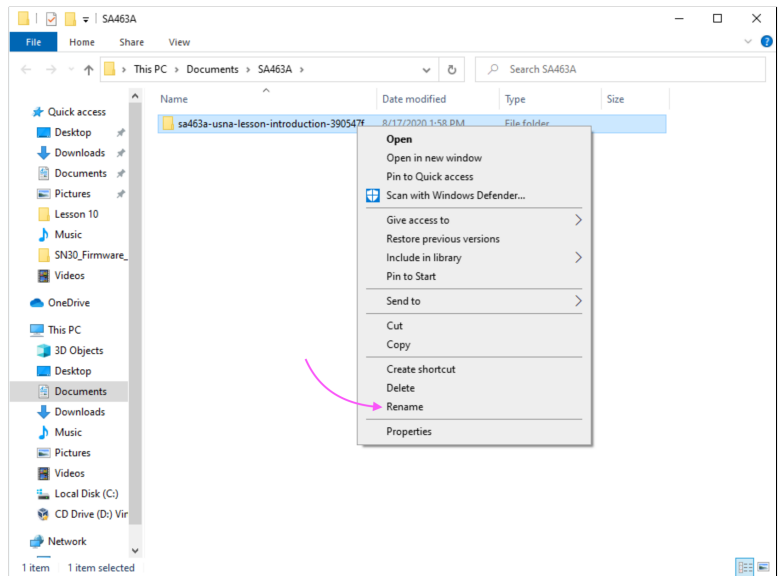

Step 3. An Explorer window should appear, highlighting the file you just downloaded. <u>Do not double-click it.</u> Instead, right-click the file, and select $\boxed{\text{Extract All...}}$

Step 4. A dialog box should appear, asking where you want to extract the contents of this file. Click on $\boxed{\text{Browse}}$ and select where you want to put a new folder with the contents of the file. Then, click $\boxed{\text{Extract}}$.

Step 5. Once the extraction is done, an Explorer window should appear, showing you the newly created folder with the contents of the file. Rename the folder something easy to read.

Step 6. Now when you launch Jupyter, navigate the file browser to the location of this newly created folder.