

Instructions for setting up Jupyter Notebook

Foundations of Data Science

January 15, 2018

For this course, we will be coding in Python and using Jupyter notebook for our lectures. This document will help you make sure these tools are set up on your computer.

1 Check the version of your Python

If you do not have Python on your machine, skip this section.

If you have Python, you need to make sure that its version is 3 or above. Otherwise, you will not be able to use the packages that we use for this course. If you want to double check which Python version you have, you can type the following command in a terminal window: `python --version`.

If your version is 3 or above, proceed with § 2. Otherwise, it is preferable to jump to § 3 (Do not update your Python).

2 Check if you have Jupyter running on your machine

In the terminal window, run the following two commands to see whether:

1. you have Jupyter installed as a command: `which jupyter`
2. your Jupyter notebook runs with Python 3 without problems: `jupyter notebook`

If your Jupyter notebook opens successfully in a browser, make sure it opens a Python 3 kernel. To do so, press the "New" button at the top right corner and make sure Python 3 is one of the options, as shown below.



2.1 Note for Windows users

It is possible that Jupyter exists on your machine, but the `jupyter` command is not defined for your system. To resolve this issue, you would need to add the `jupyter` command to your path or run Jupyter through Anaconda.

If you have Anaconda installed (your Anaconda should be using Python 3 or above), then your distribution typically includes Jupyter and you should be able to run it from the Anaconda Navigator.

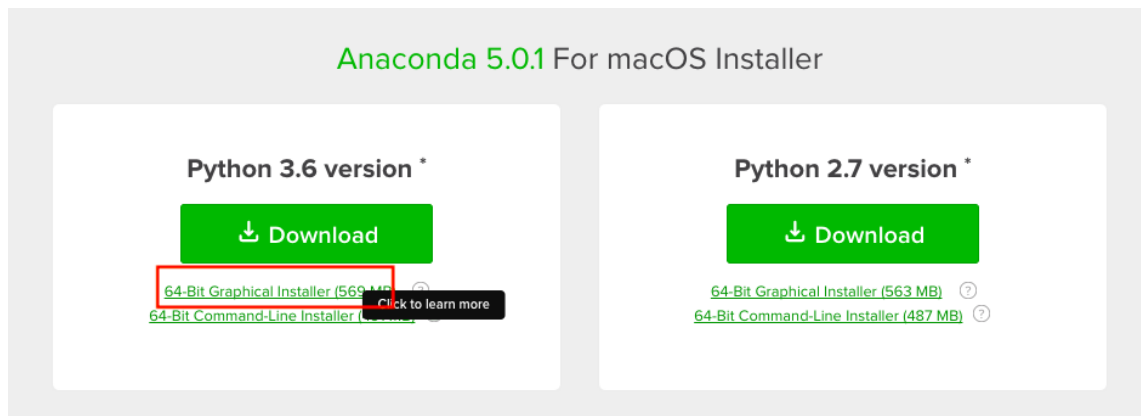
If your Anaconda was for an old Python distribution, you should uninstall it and follow § 3.

If you do not know whether you have Jupyter and the commands did not work, it is easiest to follow § 3 in order to use Anaconda

3 Installation steps for Jupyter

1. We recommend using the Anaconda distribution to install Python and Jupyter. Go to [Anaconda](#) to download the Anaconda package corresponding to your OS. Use the Graphical

Installer for Python 3.6 (press the small link under the green download button as shown in the screenshot below)



2. Install the version of Anaconda which you downloaded, following the instructions on the download page.
3. You should now have all what you need to run Jupyter with Python 3.

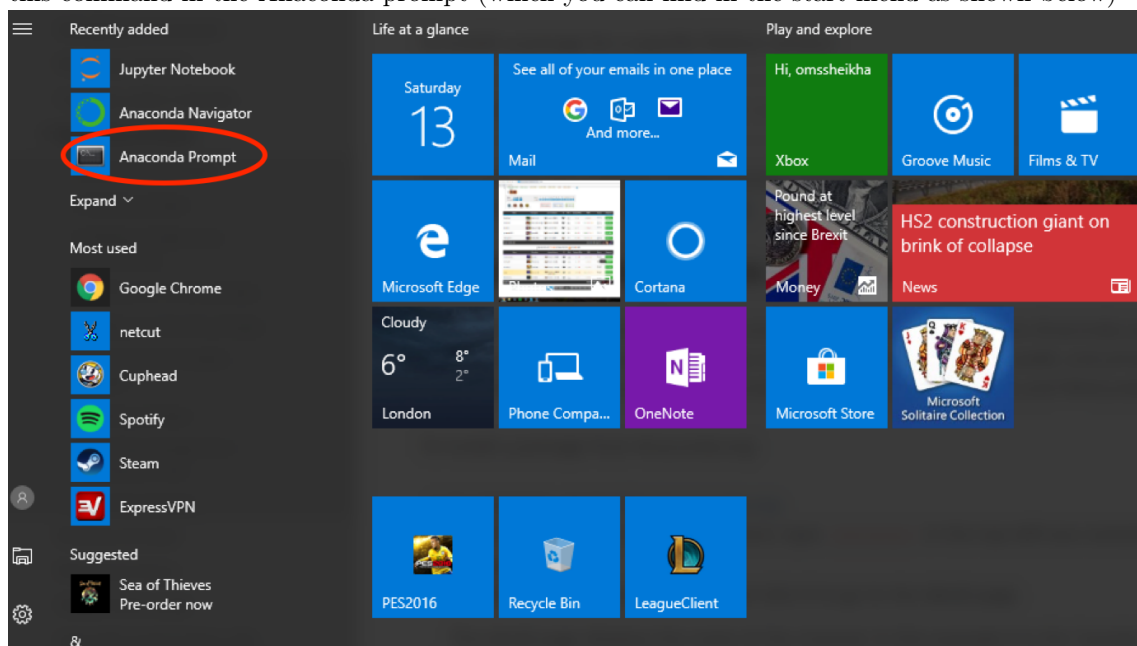
If you are a Mac user, go back to § 2 to make sure that your Jupyter is running.

If you are a Windows user, you may need to still add the `jupyter` command to your path or you can simply choose to run Jupyter through Anaconda.

4 Data Science Library

In this course, we will be needing an important Python library called `datascience`. This library was developed by Berkeley and includes most methods that we need for our course.

The most common way to install the `datascience` library is by typing the following command `pip install datascience` in the terminal. However, for Windows users it is preferable to type this command in the Anaconda prompt (which you can find in the start menu as shown below)



In some cases your `pip` command may be pointing to the wrong Python or may not be included in your path (particularly for Windows users). If this is the case, try one of these two commands: `pip3 install datascience` or `pip3.6 install datascience`. If none of these options work, you will have to run `which pip` and define whether it's a command error (The command is not defined in your path) or a path problem (The command is pointing to an old version of Python).

Both issues are likely solved by adding the pip instruction to your path. (You will need to search online how to do so for your respective Operating System). Otherwise, you may check the links provided in § 4.1 to troubleshoot your problem further.

If you are still stuck, you can email us and we will try to help you debug the problem. When you email us, please do the following:

1. Run the following commands in the terminal and send us a screenshot of the results
 - `python --version`
 - `which python`
 - `which jupyter`
 - `which pip`
 - `which pip3`
2. Indicate in your email which OS you are using and whether you started with Python and/or Anaconda on your machine or whether you followed all instructions in § 3 without any apriori installations of any of the tools

4.1 Further Links to help you with Troubleshooting

1. [Anaconda Documentation](#)
2. [Jupyter Documentation](#)

5 Testing your installation

1. We have provided you with a `.ipynb` file titled "Test File for Jupyter installation". Create a folder called "DSCourse", download the `.ipynb` file and move it to the created folder.
2. Now open a terminal and navigate to the created folder using the `cd` command. For example, if you are a MAC user and your folder is in `/Users`, then you will type `cd ~/Users/DS-Course`. (Windows users may use the `cd` command as described [here](#).)
3. Once you are inside the folder that has your `.ipynb` file, run `jupyter notebook`.
Note: Windows users who chose to run Jupyter from the Anaconda Navigator do not need to open a terminal/command prompt, they can open Jupyter and navigate to the required folder from there
4. Now you should see the file `Test File for Jupyter installation.ipynb`, click it to open it and follow it to learn how to use Jupyter and test that the datascience library is working properly inside its environment.

6 References for Learning Python

There are ample resources online that can help you learn Python. Here are some to get you started. These links are just examples but not comprehensive, so you should make it a habit to play around with Python and search for solutions online when you get stuck.

1. Python 3.6 documentation: <https://docs.python.org/3/>
2. <https://www.learnpython.org/>
3. <http://docs.python-guide.org/en/latest/intro/learning/>