

Installing Anaconda (To use Jupyter Notebooks)

BEGINNER CODERS START HERE!!

Python is a coding language. The simplest installation of Python would be a compiler program, which takes code you have written and translates it into 1's and 0's, the language of your computer.

Python is a high-level computing language. This means it is more like human language than the binary code (1's and 0's) a computer reads. The low-level languages are closer to binary digits prior to compiling the code. The lowest level language is just the 1's and 0's. You will soon see how un-compiled Python code is more like the words we use to order coffee than the binary code our computers need.

Before we get ahead of ourselves, let's install a program used by Python programmers everywhere: Anaconda! You can download it at <https://www.anaconda.com/products/individual>

Choose a 64-bit installation for your operating system (OS). Then run the downloaded file! The default install options will work well if this is your first Python installation.

Once the installation is complete, use your search bar to open Anaconda Navigator. This gives you access to all the programs included in your installation of Anaconda.

Anaconda provides multiple Integrated Development Environments (IDEs) for coding. IDEs make it easier to write code! The two Python IDEs included in Anaconda which are particularly useful are Jupyter Notebook and Spyder. This tutorial uses Jupyter notebooks, because they can be passed around and edited like a Word or Excel document. I hope this format provides you with familiarity and comfort.

1. Open Anaconda navigator, and then find the Jupyter Notebook (not JupyterLab!) program. Hit launch!

This should open up your default internet browser. The page will show your computer's files. Of course, we need jupyter notebook files (.ipynb) to open in this program, just like we need word documents (.docx) in Word and excel workbooks in Excel.

2. Go to the following github page
<https://github.com/roarkhabegger/PythonForThePhysicist>
And hit the green Code button. Then hit the download ZIP button. This will download all of the files in the tutorial to your computer.
3. Now use your [file explorer/finder](#) (not the Jupyter notebook program) to locate your Downloads directory, where the Github repository was downloaded.
4. Move PythonForThePhysicist-master.zip to your Documents folder
5. Right click on PythonForThePhysicist-master.zip and chose 'Extract All'. This should produce a folder named PythonForThePhysicist-master, with no .zip at the end.
6. Now return to your browser window with the Jupyter Notebook program open. In this program, navigate to the folder PythonForThePhysicist-master. Then go to the Intro_To_Python folder. Then go to the Lesson01_Variables folder.
7. Open the Lesson01_Variables.ipynb file. This should create another tab in your web browser.
8. Get to work on Lesson01! Good luck!

Note: Everything we do in this tutorial can be done in Spyder or any other Python IDE. You just need to copy the code from the lesson pdfs into a file ending in .py and run it in that IDE! If you are interested in working just in .py files, see the installation folder on my Github for Mac and Windows installation instructions for installing just Python with no extra programs.