Some helpful online resources

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The point of this document is to help you find some online resources that will help you learn about basics of Python programming, Jupyter Notebook and some of the widely used python libraries that you may use in your future homeworks/projects. Note that there are tons of resources online, I just put together the ones I like/used the most. Feel free to find your own resources.

Python Programming

1. Google and Stack overflowis your go-to source whenever you encounter an error or you don't know how to implement something in Python. If you are new to Python, you will find an answer and along the way, you will learn!

2. tutorialspoint's tutorial covers basics of Python programming and it utilizes an online Python interpreter so that you can see the codes in action and also play with it to test what you have learnt.

3. Python's official tutorial for those who likes to read it from the original source. Its way of explaining things is a bit more advanced, but it can definitely help.

4. Programiz's tutorial, in addition to teaching, have examples for you to solve. You can practice what you have learnt.

5. Python for Data Science and Machine Learning Bootcamp in Udemy. This course teaches how to implement Machine Learning algorithms in Python, while teaching you all the necessary libraries to do so. It also dives into Deep Learning as well, for those interested.

One of the listed tutorials should be more than enough to get you started with Python. I suggest that when you feel you are adept at basics, just drop the tutorial, code up and use Google/Stackoverflow for the problems you encounter. Best way to master Python is to practice it.

Jupyter Notebook

1. [Corey Schafer's tutorial on YouTube](#) for those who prefer watching than reading.

2. [This tutorial on Dataquest](#) for those who prefer reading. This one also includes **pandas** examples done in Jupyter Notebook.

3. [An advanced tutorial](#) that you definitely do not need for this course, but it teaches cool things that you can use to create cool tools and features in your Jupyter Notebook file. Read this AFTER completing one of the first two tutorials (or if you are already familiar with Jupyter Notebook).

Numpy

1. [NumPy's official tutorial](#) covers the basics about NumPy arrays and how you can perform operations efficiently on them. Coding with NumPy arrays are super easy; you can perform operations that require multiple loops and complex operations with just a single line in NumPy. It also supports a lot of mathematical operations.

2. [Google](#) and [Stack overflow](#) is your best friend when dealing with NumPy. Almost everytime, there is a super easy way to do a very complex operation with NumPy and most of the time you can find them online. Once you master NumPy, it is super easy and fun to code matrix operations in Python!

Others

1. **Pyplot:** [Matplotlib's own tutorial](#) is good enough for the basics.

2. **Scikit-learn** offers methods to easily train your classifier. You can check [scikit-learn's official tutorials](#) for almost everything you need to know.

3. **Pandas:** I do not prefer Pandas that much but it provides data structures that performs efficiently which you might want to utilize. Check out [this tutorial](#) if you are curious about it.