**Python for Trading – Prerequisites**

The following is a short list of suggested material to at least be familiar with. The idea is that this list will be added to over time. These are by no means compulsory but you may find the sessions more productive if you have a grasp of these concepts. We have assumed basic knowledge of pure Python and minimal knowledge of data analysis packages and trading.

While there are plenty of resources and tutorials out there, the best way to learn is by doing. Choose a project and tackle each step incrementally, looking up solutions as you go along. This is the format we will be following in the meetups. Almost any question you have about Python, data analysis, back testing and trading has been asked before and it can all be found online.

* **Pandas**

Data analysis package for Python. Based around the “DataFrame” structure which essentially allows data to be arranged in a spreadsheet-like format and then manipulated in a highly optimised manner. Comes with Anaconda.

<https://github.com/pandas-dev/pandas/blob/master/doc/cheatsheet/Pandas_Cheat_Sheet.pdf>

<http://pandas.pydata.org/>

Specific pandas methods:

<https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.rolling.html>

<https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.ewm.html>

<https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.resample.html>

* **Matplotlib**

Plotting library for Python. Comes with Anaconda.

<https://matplotlib.org/>

**Other concepts**

* Time series analysis
* Performance metrics and Sharpe ratio
* Regression

A great resource for these topics and many more is the Quantopian lecture series:

<https://www.quantopian.com/lectures>