Data Analytics and Statistical Approaches with Python

SOAS Coding Club 2021

Week 1: ***What is Data?***

This week we will be discussing different types of Data and approaches we can take on analysing them. We will also introduce different libraries in Python.

Week 2: ***Sourcing Data***

Sourcing data is always tricky in Python, whether we want a CSV or are scrapping data directly off the web. We will cover multiple approaches to Data Sourcing and will be ready to start analysing datasets.

Week 3: ***Describing the World with Data***

This week we will be analysing discrete data in order to make inferences about the world. We will discuss real life scenario's in the analysis of data types like population.

Week 4: ***Timeseries Introduction***

Timeseries will offer us an important understanding in solving important real-life problems such as Energy Usage and Stock Prices.

Week 5: ***Sourcing Data with API's***

This week we will delve into the API data sourcing technology to create a client analysing stock price data in real-time.

Week 6: ***Volatility Analysis for Finance***

Building upon Week 4 & 5 we will combine APIs and Statistical Approaches to create a stock analysis client.

Week 7: ***Visualising Data***

This week we will be looking into different types of graphs and visualization libraries such as Seaborn and Matplotlib.

Week 8: ***Regression Analysis & Statistical Relationships***

This week we will apply regression analysis on data sets and correlation studies to solve problems.

Week 9: ***Processing Natural Language an Introduction***

We will dip our toes into some Advanced NLP techniques and introduce different approaches to sourcing and analysing natural language data.

Week 10: ***K-Clusters and Networks***

To conclude we will be seeing the application of K-Cluster regression techniques for recommendation algorithms and ideas relating to networks.