## **Getting Started with Python**

## **Installing Python**



- Downloading and installing Anaconda on your PC is a good place to start. The <u>Anaconda Individual Edition</u> is open source and free of charge.
- Anaconda comes with JupyterLab and <u>Jupyter Notebook</u>. The latter is convenient because it allows you to run segments of your code separately and immediately visualise or retrieve outputs in your Internet browser window.
  - o Files with extension .ipynb are Jupyter Notebook files. A Jupyter Notebook is usually opened by typing jupyter notebook in your command prompt window. If your PC has multiple drives and you want to open Jupyter Notebook on a specific drive, please navigate to that drive in the command prompt window (e.g. by typing D: and Enter) before launching the Notebook.
- If you are going to write more complex Python code or scripts, you may also want to download <u>Visual Studio Code</u> (VS Code) or <u>PyCharm</u>. You can create and run **.py** files in PyCharm and in VS Code. The latter also supports Jupyter Notebook if you add Jupyter and Python extensions. Both also integrate with <u>GitHub Copilot</u> which can be really useful for Al-assisted coding.
- Anaconda comes with a large number of pre-installed packages. Information on additional packages can be found on the <u>Python Package Index</u> (PyPi). More information on how to install packages can be found <u>here</u> although a simple <u>pip install <package name></u> in your command prompt window is probably all you need.

## **Python for Beginners**

- There are lots of resources for learning Python online, many of them fully or partially free. The selection below is by no means exhaustive.
- Codecademy has many free Python courses. Learn Python 3 is a good starting point for beginners.
- Training websites such as **Udemy** have many free Python courses.
- There are also many phone apps available, e.g. Python 3 Tutorials.
- Youtube has many free tutorials:
  - o Python Tutorial for Absolute Beginners #1 What Are Variables?
  - o Python for Beginners Learn Python in 1 Hour
  - o <u>Learn Python Full Course for Beginners</u>
- For additional references to courses: 15 Free Courses to Learn Python.
- There are also <u>fee-based courses</u> available which give you a certificate upon completion. However, given the extent of free material available, you should carefully consider the pros and cons of paying for a course.

## **Python Projects**

- There is no better alternative to learning Python to working on specific projects.
- You can create your own projects based on publicly available data (e.g. from <u>Yahoo Finance</u>, <u>Quandl</u>) or alternatively search for interesting <u>Kaggle Competitions</u> that can be done in Python:
  - The Titanic competition is a popular application of machine learning, for example.
- If you get stuck on your project, ask the GitHub Copilot for help or search <u>Stackoverflow</u> and you'll probably find your question answered in at least five different ways!