



Python for Data Science

Programme duration

88 hours

Option of weekend or evening classes

Qualification description

Python is an interpreted, high-level, general-purpose programming language that is becoming more and more popular for doing data science. Many companies harvest insights from their data and get a competitive edge using Python.

This module focuses on Python specifically for Data Science. You will master the basics of Data Analysis in Python and expand your skill set by learning scientific computing with numpy. You will gain knowledge and skills about Python Basics, Python Lists, Functions & Packages, and NumPy. Thus, you will learn about powerful ways to store and manipulate data as well as cool data science tools to start your own analyses.

You will level up your data analysis skills by creating visualisations using matplotlib and manipulating data frames with Pandas. In other words, you will learn to visualise real data with matplotlib's functions and get to know new data structures such as the dictionary and the Pandas DataFrame. You will cover key concepts such as Boolean logic, control flow, loops in Python, and by blending the gained knowledge, and skills together, you are able to solve a case study using hacker statistics.

You will be equipped to write your very own custom functions, complete with multiple parameters and multiple return values, along with default arguments and variable-length arguments. You will gain insight into scoping in Python and be able to write lambda functions and handle errors in your very own function writing practice. With the acquired skills, you will write functions that analyse Twitter DataFrames and so on.

You will learn about list comprehensions, which are extremely handy tools that form a basic component in the toolbox of all modern Data Scientists working in Python. You will end the module by working through a case study in which you will apply all the techniques learned.

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