

INTRODUCTION TO PYTHON WORKSHOPS

Audience

This workshop is for those interested to learn Python and is aimed at both beginners and those with a little Python experience. The topics and examples are chosen such that you can directly use Python for a Data Science project afterwards. Someone who comes to all the sessions (and does some practising at home) will have covered the pre-requisites for a typical Data Science bootcamp by the end of the workshop.

Note that it is not necessary to come to all the sessions – you can pick the ones of interest to you if there are only some topics you want to cover.

While it is not mandatory to bring your own laptop, it is highly recommended to bring one if you want to practise with us.

Format of the sessions

Each session will stretch for a duration of max. 2 hours and will be divided into two parts: a theory part and a practice part.

During the first hour of each session, we will present the topic and show a few examples on how to apply the theory. We will be using a combination of PowerPoint slides and Jupyter notebooks for this.

During the second hour, you can practise what you learnt – either on your own or in small groups, as you prefer. A range of examples and mini-projects will be provided so that you can select an appropriate level according to your experience and ambition. It will also provide an opportunity to discuss any unclarities on previous weeks' topics.

Discussions can continue during/after pizza, according to demand.

All material will be available online afterwards and we welcome questions anytime both during the sessions and afterwards.

Proposed Syllabus

Session	Date	Topic area	Covering:
1	15 Jan '20	Setting up the Python environment	Overview of workshops Python installation Anaconda Jupyter notebooks PyCharm IDE for debugging Packages and environments
2	29 Jan '20	Data Structures	Data Types (strings, integers, floats) Lists Dictionaries Arrays (Numpy package)
3	12 Feb '20	Programming fundamentals	Conditionals For/while loops Try/except statements
4	26 Feb '20	Programming fundamentals	Functions Debugging in PyCharm
5	11 March '20	Working with data	Introduction to Pandas Loading/saving/manipulating data with Pandas
6	25 March '20	Visualizations	Introduction to Matplotlib
7	8 April '20	Testing	Testing in Python OR Code Quality (Pep8) OR something else? (TBD)