**Technical Python Bootcamp**

The technical bootcamp shows you the basic and advanced approaches of typical Python paradigms and libraries, like IPython, NumPy or pandas. This bootcamp covers those basic libraries and tools that you need every day.

This Technical Python Bootcamp covers the following topics:

* advanced pandas
* visualization with plotly
* input/output (I/O) operations
* performance Python

**Overview and Introduction**

This gives an overview of the contents of the training.

This Technical Python Bootcamp teaches Python from the **point of view** of someone working in a financial institution, e.g. quantitative analysts, traders, risk managers, model validators and developers in

* banks,
* investment banks,
* asset managers,
* hedge funds

or someone working for such a financial institution (e.g. in a consulting capacity). The **focus** of the workshop lies on

* interactive financial analytics,
* interactive data analytics with Python & pandas and
* IO operations as well as Performance

**Advanced pandas A**

This module covers advanced techniques with pandas.

This module covers the following topics:

* Grouping
* Joining, Appending, Merging
* High Frequency Data
* Simple Statistical Analyses

**Advanced pandas B**

This module covers advanced techniques with pandas

This part introduces more advanced pandas techniques. In particular, the following topics are addressed:

* Performance Topics
* Complex Data Selection
* More on Visualization
* IO with pandas (HDF5, SQL, CSV, Excel)
* Using Compression

**Interactive Visualizations with plotly**

This module is about nice, interactive D3.js plots with plotly and Cufflinks.

Slide Type This module is about basic visualization capabilities of plotly in combination with pandas and Cufflinks (cf. http://plot.ly). It mainly covers the following topics:

* 2d plotting
* financial plots
* basic statistical plots

**Input-Output Operations**

This module is about I/O operations with Python, NumPy and pandas.

This module addresses the following areas:

* basic I/O with Python
* I/O with pandas
* I/O with PyTables

... and a bit of SQLite3.

**Performance Python**

This module discusses a number of performance-related topics.

Slide Type This module introduces the following performance libraries:

* Cython
* multiprocessing
* numexpr
* Numba