Trainings

Python for Analysts

The 'Python for Analysts' Training is conducted by our training partner, the consulting firm Königsweg.

Duration: 2 days

Target group: Analyst:innen, Mathematiker:innen, Wirtschaftswissenschaftler:innen, Ingenieur:innen, etc.

The Training sessions are usually held in German. Please contact us if you are interested in Training sessions in English.

The Python open source programming language impresses with its clear syntax, simple structures and easy readability. Thanks to the extensive standard libraries, Python can be used to realise powerful ideas with just a few lines of code – in fact in almost all application areas.

Despite or precisely because of this simplicity, Python offers good scalability and is particularly suitable for the effective implementation of complex analysis models and simulations. The 'Python for Analysts' course provides deeper insight into Python's analysis options for advanced users.

The participants are to be trained further in such a way that they can solve specific challenges and problem in their professional field more effectively using Python. Participants learn the following skills in a participative workshop format based on practical application scenarios and case studies:

- Using the Jupyter web-based programming environment competently

- Using the Pandas program library competently

- Using data visualisation with Jupyter competently

- Initial knowledge of machine learning using Sci-Kit Learn

Python's specific application areas in companies are:

- Automating administrative tasks

- Programming web applications

- Accessing and managing databases

- Developing Graphical User Interfaces (GUI)

- Analysing high-volume data sets

- Optimising and automating processes

This Training focuses on practical applicability. The Training is based on a database that the participants use to learn methods, tools and techniques.

Agenda:
Day 1 – Python for Analysts, Part 1
Jupyter Notebooks course

- Notebooks basics

- Markdown

- Starting Jupyter

- Writing and executing code in Jupyter

- Partitioning

- Sharing and exporting notebooks

Introduction to Pandas

- Reading and writing information; from files or from databases

- Data series

- Data frames

Day 2 – Python for Analysts, Part 2
Introduction to Pandas – continued

- Boolean indexing

- Aggregate data

- Interacting with Excel

Introduction to data visualisation using Jupyter

- Data visualisation using Jupyter

- Partitioning (via Pandas, Matplotlib, Seaborn)

- Designing visualisation in an appealing way

Outlook: Machine Learning using Sci-Kit Learn

- General concept of Machine Learning

- Supervised / Unsupervised learning

- Most important ML algorithms

- Exercise: Titanic survival analysis

The Python Basic Training is also offered as on-site Training. If you have several employees in your company who are interested in the Training, you are welcome to request an individual quote for Training at your premises and on the date you want. Please contact Königsweg directly with your enquiry.