

Hafeezullah Haidari

successfully participated in the program

Data Science with Python Advanced

with TechAcademy e.V. at Goethe University Frankfurt in the winter semester 2023/2024. The students learned the following skills for data analysis and data science:

- Intermediate Python, working with dictionaries, DataFrames, Logic, Control Flow, Filtering, and Loops
- Advanced Python, using different multi-argument user-defined and lambda functions, as well as error-handling
- Iterators, List Comprehensions and Generators
- Importing Data from flat files, pickled files, Spreadsheets, and Relational Databases
- Data Cleaning and Record Linkage
- Machine Learning for Time Series Data
- Data Visualization with matplotlib, Seaborn, and Bokeh
- Exploratory Data Analysis
- Building Linear Models, making model predictions, and estimating model parameters
- Statistical Thinking, like Graphical EDA, Quantitative EDA, Discrete Variables, Continuous Variables
- Time Series Analysis (Correlation, Autoregressive Models, Moving Average and ARMA Models)

The participants applied their programming skills by working in small groups to analyze Netflix movie and TV show data dealing with titles, durations, publishing dates, and genres. The participants cleaned, aggregated, and merged the data as part of the exploratory data analysis. They then visualized key aspects to discover underlying patterns and draw conclusions. In a second step, the students created a recommendation system based on genre, actors and movie description. By using advanced statistical methods they were able to give explanatory statements about the data.

A handwritten signature in black ink, appearing to read "P. Schmitz".

Paulina Schmitz
Chairwomen of the Board

A handwritten signature in black ink, appearing to read "L. Schilling".

Lars Schilling
Vice Chairman of the Board

Frankfurt, 06.03.2024