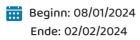


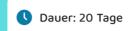


Data Science Fundamentals

#010202











Key Learnings

- Python Programming for Data Science (Pandas, Numpy, Sklearn)
- Basic Statistics for Data Science and Hypothesis Testing
- Advanced Regression Techniques
- Advanced Data Manipulation and Feature Engineering
- Basics of Machine Learning
- Advanced Data Visualization with Python (Dash-Plotly)

Target Group

Experienced: Python Developers, R programmers

Anforderungen

Basic Python including:

- Basic logic: If/else, try/except, for/while
- Data types: list, int, float, string, dict, set, etc...
- Object Oriented Programming: Functions and Classes
- Basic Familiarity with Unix-based command-line
- Basic Familiarity with Version-Control like Git (NOT Mandatory)
- API basics (NOT Mandatory)
- REST (post, get, delete, etc...)
- Database Basics (NOT Mandatory)
- Basic SQL queries

Programm Inhalt

Week 1:

- Introduction to Git
- · Object-Oriented Python Revisited
- Basic Statistics for Data Science
- Introduction to Hypothesis Tests
- Introduction to Regression

Week 2:

- Regression: revisited
- Introduction to Non-Linear Regression
- Time-Series Regression
- Forecasting
- Confidence Intervals

Week 3:

- Data Manipulation and advanced Pandas functions
- Introduction to Data Visualization (plotly / dash)
- Introduction to Machine Learning
- Examples of Projects
- Feature Engineering

Week 4:

- Machine Learning Implementation
- Forecasting with Non-Linear Regression Implementation
- Advanced Data visualization
- Students finish the month with a fully functioning Dash Web-application to visualize the results of their project!

Result:

Start-To-Finish Web-application for Data Science Applications