

# Python for Data Science

Duration  
3 Days

Delivery Methods  
VILT, Private Group



Data Science is the critical skill of the modern workforce. Data science skills allow for the extraction of key insights and relevant knowledge from large datasets. This data science training course is for Python developers who want to learn how to use the key libraries in the Python Data Science ecosystem. This course covers NumPy for numerical data processing, Pandas for data analysis, and Matplotlib and Seaborn for quick visualizations and statistical reporting. The training is all conducted in a modern Jupyter Notebook format, allowing students to read and write code directly within our training notebooks.

You'll learn everything you need to know for the full data science tech stack required to work at the world's top companies. This Python for Data Science course takes a structured approach that will guide you through understanding not just how to use data science, but why we use them by providing a balance between practical real world case studies and mathematical theory behind the data science algorithms.

**Please note, this course is able to be offered in either 3 full day sessions or 5 evening sessions. See the schedule below.**

This course includes 6-months access to the full course content in on-demand format to support post-class reference and review.

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## Who Should Attend

Intermediate Python developers looking to use Python to explore and visualize large or complex data sets. Check out our Introduction to Python course if you're new to Python.

## Course Objectives

- Learn how to use data science with Python.
- Create data pipeline workflows to analyze, visualize, and gain insights from data.
- Build a portfolio of data science projects with real world data.
- Analyze your own data sets and gain insights through data science.
- Master critical data science skills.
- Replicate real-world situations and data reports.
- Learn NumPy for numerical processing with Python.
- Conduct feature engineering on real world case studies.
- Learn Pandas for data manipulation with Python.
- Learn Matplotlib to create fully customized data visualizations with Python.
- Learn Seaborn to create beautiful statistical plots with Python.
- Construct a modern portfolio of data science resume projects.
- Get set-up quickly with the Anaconda data science stack environment.

## Agenda

- Python
- Jupyter Notebooks
- Numpy
- Pandas
- Data I/O
- Excel
- CSV
- SQL
- Convert datasets to dataframes
- Alter specific data using custom functions
- Handle missing data
- Aggregate data
- Matplotlib for fully customizable plots
- Implement custom figures and axis
- Seaborn for statistical plots
- Scatter Plots
- Distribution Plots

- Box Plots