

DATA VISUALIZATION

INTERMEDIATE

5 DAYS

Data Visualization with Matplotlib & Seaborn

Build a strong foundation in data visualization using Python by mastering Matplotlib and Seaborn for exploratory and analytical insights. Learn how to create customized, time series, and interactive visualizations using real world datasets to effectively analyze patterns and communicate insights.

Why Matplotlib and Seaborn?

Enhanced Decision Making

With Matplotlib & Seaborn, you can create intuitive charts and graphs that empower decision-makers to quickly extract valuable insights from data. This, in turn, facilitates data-driven decision-making.

Efficient Reporting

Automated data visualization can streamline the reporting process, saving valuable time for your team and allowing them to focus on analysis and strategic actions.

Exploratory Data Analysis

Data visualization with Matplotlib & Seaborn provides an excellent platform for exploratory data analysis (EDA). EDA allows you to interactively explore datasets, identify relationships between variables, and uncover hidden patterns.

What you'll be able to do

- ✓ Understand the importance of data visualization and its role in the data analysis process.
- ✓ Gain proficiency in using Matplotlib to create a wide range of static and interactive visualizations.
- ✓ Learn to utilize Seaborn to create visually appealing statistical graphics with less code.
- ✓ Discover advanced customization techniques for both Matplotlib and Seaborn.
- ✓ Explore how data visualization can facilitate data analysis and insight generation.
- ✓ Understand the specific challenges of visualizing time-series data and learn to create effective line plots, area plots, and heatmaps to analyze temporal trends and patterns.
- ✓ Explore interactive data visualization using libraries like Plotly and Seaborn.
- ✓ Apply the learned skills to real-world datasets and tackle practical data visualization challenges.

Who this is for

- Data Analysts
- Data Scientists
- Business Analysts
- Data Engineers
- IT Professionals
- Anyone Interested in Data Visualization

Curriculum

01 Visualization Foundations

- Apply visualization foundations in practical visualization workflows
- Build and refine examples using realistic datasets
- Check clarity, accuracy, and stakeholder readability
- Document choices and iterate based on feedback

02 Matplotlib Basics

- Apply matplotlib basics in practical visualization workflows
- Build and refine examples using realistic datasets
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03 Core Plot Types

- Apply core plot types in practical visualization workflows
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04 Customization and Subplots

- Apply customization and subplots in practical visualization workflows
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05 Seaborn Distributions and Categoricals

- Apply seaborn distributions and categoricals in practical visualization workflows
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06 Regression Plots and Heatmaps

- Apply regression plots and heatmaps in practical visualization workflows
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07 Time-Series Plots

- Apply time-series plots in practical visualization workflows
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08 Styling

- Apply styling in practical visualization workflows
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09 Plotly Interactivity Intro

- Apply plotly interactivity intro in practical visualization workflows
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10 Dashboards and Storytelling

- Apply dashboards and storytelling in practical visualization workflows
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11 Projects and Best Practices

- Apply projects and best practices in practical visualization workflows
- Build and refine examples using realistic datasets
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