COURSE SYLLABUS

Python Data Science & Machine Learning Bootcamp

Master Python for data analysis, machine learning, and automation. Build predictive models, create dynamic dashboards, and unleash the power of data visualization. Launch your career in data science and Python engineering, equipped with Python, NumPy, Pandas, and Matplotlib.

> Group classes (Live Online) and onsite training are available for this course. For more information, email corporate@nobledesktop.com or visit: https://www.careercenters.com/certificates/python-data-science-machine-learning-bootcamp



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Course Outline

This package includes these courses

- Python for Data Science Bootcamp (30 Hours)
- Python Machine Learning Bootcamp (30 Hours)
- Python for Automation (6 Hours)
- Python Data Visualization & Interactive Dashboards (30 Hours)

Choose one free elective. Contact us after registration to select your dates.

- Python for AI: Create AI Apps with Flask & OpenAI
- Python Machine Learning Advanced

Python for Data Science Bootcamp

- Handle different types of data such as integers, floats, and strings
- Control the flow of your programs with conditional statements, loops, and functions
- Reuse and simplify code with object-oriented programming
- Analyze tabular data with NumPy and Pandas
- Create graphs and visualizations with Matplotlib
- Make predictions with linear regression, using scikit-learn

Python Machine Learning Bootcamp

- How to clean and balance your data using the Pandas library
- Applying machine learning algorithms such as logistic regression and random forest using the scikit-learn library

- Choosing good features to use as input for your algorithms
- Properly splitting data into training, test and cross-validation sets
- Important theoretical concepts like overfitting, variance and bias
- Evaluating the performance of your machine learning models

Python for Automation

- Learn the syntax of Python and how to construct programs
- Learn how to run your programs on a regular schedule
- How to handle errors

Python Data Visualization & Interactive Dashboards

Transform raw data into interactive visual insights by building dashboards with Python's top visualization tools. This course blends analysis, design, and deployment to help you showcase data professionally.

- Work with real-life datasets using Python's core libraries, including NumPy for numerical computing and pandas for data manipulation
- Create static and interactive visualizations using Matplotlib, Seaborn, and Plotly to clearly communicate trends and patterns
- Build multi-component dashboards using Dash Enterprise, incorporating callbacks, sliders, date pickers, and more
- Practice hands-on development by applying new skills to personalized projects with guided instructor support
- Publish your dashboards online using GitHub and Heroku to demonstrate your work to potential employers or clients
- Explore best practices for styling and structuring visual narratives that are clear, persuasive, and engaging