

Python for Data Science Bootcamp

Pick up Python fundamentals and quickly transition into analyzing real-world datasets. You will learn to how to clean and combine data, as well as generate useful statistics and visualizations. The final sessions will be focused on using linear regression to extrapolate from data and make predictions.

Group classes in NYC and onsite training is available for this course. For more information, email hello@nobledesktop.com or visit: nobledesktop.com/classes/python-data-science-bootcamp



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Course Outline

Python Fundamentals

Data Types & Variables

- Statements & Expressions
- Variables
- Integers & Floats
- Strings

Data Structures & Attributes

- Functions & Methods
- Lists
- Indexing & Slicing
- Booleans

Structuring Programs

Complex Data Structures & Control Flow

- Dictionaries
- Conditional Statements
- For Loops
- Creating Functions

Packages & Object Oriented Programming

- Classes & Objects
- Modules & Imports
- Packages & Documentation

Arrays & Dataframes

Numpy

- Arrays
- Universal Functions
- Boolean Indexing

Pandas

- Pandas Dataframes
- Pandas Series & dtypes
- Column Manipulation
- Descriptive Statistics

Analyzing & Visualizing Data

Data Analysis

- Filtering & Cleaning Data
- Groupby Operations
- Pivot Tables

Data Visualization

- Plotting with Matplotlib
- Bar Charts
- Scatter Plots
- Histograms
- Customizing Visualizations

Linear Regression

Statistical Modeling

- Theory of Linear Regression
- Simple Linear Regression with sci-kit learn
- Multiple Linear Regression
- Overfitting & Outliers
- Evaluating Models
- Assumption & Limitations of Linear Regression