

# FinTech Bootcamp

Get the skills you need for a career in finance technology with the FinTech Bootcamp. Learn Python programming, data science, financial analysis, data visualization, and machine learning to become a Financial Analyst, Data Scientist, or Data Analyst.

Group classes in NYC and onsite training is available for this course. For more information, email [corporate@nobledesktop.com](mailto:corporate@nobledesktop.com) or visit: <https://www.nobledesktop.com/certificates/fintech-bootcamp-nyc>



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## Course Outline

This package includes these courses

- Python for Data Science Bootcamp (30 Hours)
- SQL Bootcamp (18 Hours)
- Python for Automation (6 Hours)
- Python Data Visualization & Interactive Dashboards (24 Hours)
- Python Machine Learning Bootcamp (30 Hours)

Choose two of the classes below as free electives (contact us after registration).

- Python for Finance Bootcamp
- Financial Modeling Bootcamp
- Python for AI: Create AI Apps with Flask & OpenAI

## Python for Data Science Bootcamp

Build a strong foundation in Python programming and data analysis through real-world projects that prepare you for advanced topics like machine learning and predictive modeling.

- Learn Python fundamentals, including variables, data types, functions, loops, and control flow for building robust programs
- Work with complex data structures like dictionaries and lists to efficiently organize and access data
- Use NumPy and Pandas to import, clean, and manipulate datasets for analysis and exploration
- Generate descriptive statistics and apply filtering, grouping, and pivoting techniques for deeper insights
- Visualize data with Matplotlib and create clear, customized charts such as bar graphs, histograms, and scatter plots
- Gain the practical skills needed to transition into machine learning with a solid understanding of data science workflows

## SQL Bootcamp

Learn how to extract, filter, and manipulate data using SQL. This course covers PostgreSQL fundamentals, database querying,

table joins, and advanced techniques for handling large datasets.

- Write SQL queries to retrieve, filter, and sort data efficiently.
- Use joins to combine information from multiple tables and establish relationships.
- Apply aggregate functions like SUM, COUNT, AVG, and GROUP BY to summarize data.
- Work with subqueries, conditional logic (CASE statements), and advanced string functions.
- Optimize queries using indexes, data type conversions, and best practices.
- Explore views and user-defined functions to streamline database management.

## Python for Automation

Learn how to automate web tasks and extract valuable online data using Python, with practical training in web scraping, data storage, and script scheduling.

- Understand how websites are structured using HTML and CSS to identify elements for data extraction
- Learn Python fundamentals, including variables, data types, conditionals, loops, and list manipulation
- Use the Requests and BeautifulSoup libraries to perform web scraping and target specific content
- Write loops to automate scraping across multiple web pages and streamline repetitive tasks
- Store scraped data in various formats, including text files and CSVs, for analysis and reporting
- Schedule Python scripts to run regularly, enabling continuous data collection and workflow automation

## 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

## Python Machine Learning Bootcamp

Gain hands-on experience building predictive models using Python in this practical machine learning course, designed to help you understand core algorithms and apply them to real-world data.

- Explore foundational techniques like linear and logistic regression for modeling numerical and categorical data
- Understand the difference between regression and classification problems and when to apply each approach
- Build and evaluate models using k-nearest neighbors, decision trees, and ensemble methods like random forest
- Learn key concepts such as cross-validation, training vs. test sets, and performance metrics like mean squared error
- Apply feature engineering techniques to improve model accuracy while managing overfitting and bias-variance tradeoffs
- Use Python's essential data science libraries, NumPy, Pandas, and scikit-learn, to structure data and implement algorithms
- Gain insights into how machine learning powers systems at companies like Netflix, Spotify, and Amazon
- Complete a final portfolio project that demonstrates your ability to apply machine learning to solve real problems