COURSE SYLLABUS

FinTech Bootcamp

At the end of the certificate, students will feel comfortable trading in Excel spreadsheets for Jupyter notebook. Students will leave this course having worked on multiple projects using Python to pull, clean, analyze, and visualize financial data from all different sources. Additionally, students will learn how to use machine learning to build predictive financial models and export them into PDF or Excel. Lastly, students will gain an understanding of how to organize and find data in SQL.

> Group classes in NYC and onsite training is available for this course.
> For more information, email contact@nyimtraining.com or visit:
> https://training-nyc.com/certificates/fintech-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)
- SQL Bootcamp (PostgreSQL) (18 Hours)
- Python for Automation (6 Hours)
- Python for Finance Bootcamp (18 Hours)

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

PostgreSQL Bootcamp

- Explore and alter data using a graphical user interface
- Write queries to search through tables programmatically
- Understand various data types and convert between them
- Combine information across tables with join statements
- Advanced techniques like subqueries and timestamp functions

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 for Finance Bootcamp

- Learn the major Python financial libraries to gather and manipulate financial data
- Work with financial APIs to fetch financial, company, and economic data
- Analyze financial statements from the SEC website
- Analyze financial ratios derived from the income statement and balance sheet
- Build a risk management model using Python libraries to create VAR models and Monte Carlo simulation
- Apply statistical measures such as linear regression to financial uses such as stock prices