COURSE SYLLABUS

Machine Learning & Automation for Finance

This course will begin with advanced Python and statistics topics such as object-oriented programming and regression models. Students will learn how to apply these concepts using real-world financial data by building a predictive returns model using regression. We will then introduce students to important financial statements and ratios, and how to pull data from these statements and compute these important financial ratios using Python.

> Group classes (NYC) and onsite training are available for this course. For more information, email corporate@nobledesktop.com or visit: https://programwithus.com/classes/machine-learning-finance-nyc



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Course Outline

Object-Oriented Programming & Introduction to Machine Learning

- Object oriented programming with Python
- Machine learning for financial decisions
- The baseline model – multiple linear regression
- How to build a linear factor model
- How to predict returns with linear regression

Predictive Financial Modeling using Python

- Essential Financial ratios with Python
- Statement Analysis with Python
- Parsing all types of files for data
- How to gather information from different sources (Web, PDF, API)
- Calculating WACC
- Make a decision based on IRR
- Calculation NPV

Visualization & Automating Reporting

- Budgeting with Python
- Making Data-Driven Decisions with Python
- Saving your data in CSV, Excel, SQL, PDF
- Data visualization with Python