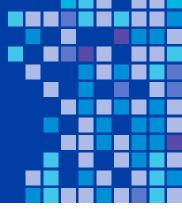# CFA Institute

Data Science for Investment Professionals Certificate

This certificate is designed to provide investment professionals with practical knowledge of the fundamentals of machine learning techniques and how they are used in the investment process. Learners will be able to explain clearly and "translate" machine learning concepts and their application to real-world investment problems to a non-expert audience and clients. Your team will master the language of Data Science to better serve and anticipate the needs of your clients.

Learning Outcomes

- Describe and evaluate the statistical methods that underpin machine learning techniques
- Select appropriate data visualizations and create simple visualizations using Python and R
- Describe how machine learning applications can address real-world investment problems
- Explain machine learning concepts and techniques to a non-expert audience
- Interpret natural language processing–based classification models and make investment decisions
- Evaluate machine learning models for biases and use strategies to mitigate them.

Course Topics

Course 1	Data and Statistics Foundation
Course 2	Statistics for Machine Learning
Course 3	Machine Learning
Course 4	Natural Language Processing
Course 5	Mitigating Biases in the Data Science Pipeline
Assessment	90-minute multiple-choice assessment (online)

BENEFITS FOR EMPLOYERS

- Employees with this certificate will enable the successful integration of data science techniques in their firms and offer significant ROI.
- When non-expert employees are able to work with data scientists and "speak the same language", there is greater clarity and focus, which increases productivity and impact.
- Employees completing the certificate will enable employers to better implement T-shaped teams in their firms.

Format
Self-paced online

Time to complete
90 - 100 hours

Price
USD 1,399 for members
USD 1,599 for non-members

PL Credits
Members can claim 20 PL credits toward professional learning goals.

Recognition Format
Certificate and Digital Badge
Upon completion of all courses and the coding labs, and the minimum passing score on the final assessment.

Participant Profile
This certificate is ideal for those with some background in finance and investments who want to develop a basic, practical understanding of data science application in the investment process and be able to act as the "translator" between data science team, investment professionals and non-expert clients.

REGISTER NOW

Practical Application Exercises

Learners will use Python to practice calculating measures of central tendency, calculating measures of dispersion, and creating data visualizations. Learners will:

- See the application of Python in linear regressions and advanced regression concepts.
- Review machine learning solutions to classification, clustering and factor investing problems, and can interact with the associated Python code.
- Walk-through the steps for using Python to build a natural language processing-based model for classifying sentiment of financial texts.
- See how Python can be used to identify biases that arise in different phases of the data science pipeline and how to implement strategies to mitigate them.

Most common job titles
that benefit from this Certificate:

- Portfolio Manager
- Equity Analyst
- Quant Analyst
- Investment Strategist
- Financial Advisor
- Financial Reporting Analyst
- Client Relations Manager

Certificate based on extensive research and industry case studies

AI Pioneers in Investment Management
Research Report

Handbook of AI and Big Data Applications in Investments
Research Report

CUSTOMER TESTIMONIALS

"
I would like to thank Neil Govier, CFA for creating this outstanding and **well-structured learning experience!**"

"
This course has helped me understand the **core concepts of machine learning techniques** and improve my knowledge of statistics. Now, I'm going to implement my knowledge at work to reach a new level in data analytics!"

"
The Data Science for Investment Professionals Certificate is one of the **strongest and most knowledgeable courses** in the market for anyone who's working in any investment-related job. Its primary goal is to prepare you to become the focal point—or as CFA Institute calls it, "the translator"—between the investment management team and the data science team, in order to **extract valuable insights from raw data that will help shape the next investment decision** and translate complex data science concepts clearly to clients."

"
Thank you CFA Institute for **simplifying such complex topics.**"