

**CHARTERED**   
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

# CHARTERED AI INVESTMENT ANALYST™

**CAI™**

**Fully Accredited  
By:**

Chartered Institute of  
Professional Certifications

CPD  
Certification Service



# PROGRAM OVERVIEW



AI investment analysis is critical due to the vast data volumes and complexities modern investors face. According to Refinitiv, **AI-driven strategies could boost investment returns by 30-50% annually**. With 84% of asset managers already utilizing AI according to Accenture, embracing AI analysis is imperative for competitive edge and superior investment outcomes.

This Chartered AI Investment Analyst (CAI™) program is designed to equip you with comprehensive knowledge and hands-on skills essential for navigating the sophisticated AI application in investment analysis. You will explore the dynamic AI-driven investment strategies, delving into foundational theories, technological advancements, and practical applications in the finance industry. Throughout the program, you will learn crucial topics such as the **integration of AI with investment analysis, Python programming for financial data processing, machine learning algorithms, deep learning frameworks, natural language processing (NLP), and the innovative use of large language models (LLMs) in finance**. You will learn the mechanism of AI technologies, including **supervised and unsupervised learning, regression, classification, clustering, advanced model architectures** like Recurrent Neural Networks (RNNs), Long Short-Term Memory (LSTMs), and Transformers to build robust risk management strategies in your investment strategies.

Moreover, you will acquire practical skills in **developing AI-driven investment strategies, processing and visualizing financial data, building and evaluating predictive models, and applying NLP for financial analysis**. This program will also help you to explore advanced topics such as **sentiment analysis, summarization, and topic extraction in finance**, along with the cutting-edge potential of generative AI and its implications for the modern of investment analysis, ensures a forward-looking education.

Upon completing the program, you will earn the prestigious **Chartered AI Investment Analyst (CAI™)** designation that will demonstrate your **expertise in deploying advanced AI models in optimizing investment and financial analysis strategies**. This CAI™ credential will distinguish you as an expert in adopting cutting-edge AI-driven investment analysis, enhancing your credibility and career prospects within the industry.

## ACCREDITATIONS



4.8



4.6



# KEY SKILLS YOU WILL GAIN

## From This Program



**ARTIFICIAL INTELLIGENCE  
INVESTMENT ANALYSIS WITH AI  
PYTHON PROGRAMMING  
FINANCIAL DATA ANALYSIS WITH AI**

**FINANCIAL DATA PREPROCESSING  
DEEP LEARNING IN INVESTMENT ANALYSIS  
MACHINE LEARNING  
PREDICTIVE MODELLING MODELS**

**TIME SERIES MODELS  
TREE BASED METHODS  
SUPERVISED VS UNSUPERVISED LEARNING  
NATURAL LANGUAGE PROCESSING (NLP) IN  
FINANCE**

**RECURRENT NEURAL NETWORKS (RNNs)  
LONG SHORT-TERM MEMORY (LSTMS)  
SENTIMENT ANALYSIS IN INVESTMENT ANALYSIS  
TOPIC MINING FOR FINANCIAL TEXTS**

**DATA VISUALIZATION WITH MACHINE LEARNING  
& AI  
FINANCIAL DATA SCIENCE**

# YOUR FACULTY DIRECTOR



## Michael Wang, CFA

### LinkedIn Top Voice - AI & Deep Learning Expert

Michael Wang, CFA, stands at the forefront of the data science and artificial intelligence landscape. As a **recognized LinkedIn Top Voice in AI & Deep Learning**, Michael brings over a decade of diverse experience spanning institutional investing, consulting, hedge funds, fintech, and data science. His expertise in predictive analytics, financial time series, deep learning, NLP, and data visualization is widely acknowledged. Michael has imparted his knowledge in **AI as a lecturer at the University of Sydney and currently spearheads a data science team** at a leading tech company.

His insights extend beyond the professional sphere; he writes for the largest data science publication on Medium and **features regularly as a top writer in AI, Technology and Business**. Michael's multifaceted career demonstrates a blend of technical proficiency and thought leadership in the evolving world of AI and data science.

# OUR PARTICIPANTS

Over 70% of FORTUNE 500 Companies Have Attended Our Accredited Programs Before



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IKEA



VOLVO



HYUNDAI



Pfizer

Life is our life's work



Nestlé

# PROGRAM AGENDA



## MODULE 1 - INTRODUCTION TO INVESTMENT ANALYSIS AND AI

- Lesson 1: Introduction to Investment Analysis and AI - Part 1
- Lesson 1: Introduction to Investment Analysis and AI - Part 2
- Lesson 2: Timeline of AI
- Lesson 3: Core Investment Concepts
- Lesson 4: Applications and Use Cases

## MODULE 2 - INTRODUCTION TO PYTHON

- Lesson 1: Introduction to Python
- Lesson 2: Python Basics - Part 1
- Lesson 2: Python Basics - Part 2
- Lesson 3: Data Frames and Visualizations
- Lesson 4: Working with Financial Data
- Lesson 5: Case Study

## MODULE 3 - INTRODUCTION TO MACHINE LEARNING

- Lesson 1: Introduction to Machine Learning
- Lesson 2: Supervised Learning
- Lesson 3: Unsupervised Learning
- Lesson 4: Working with Financial Data

## MODULE 4 - TIME SERIES MODELS

- Lesson 1: Time Series Models
- Lesson 2: Support Vector Machines
- Lesson 3: Tree Based Methods
- Lesson 4: Hyperparameter Optimization
- Lesson 5: Evaluation and Backtesting
- Lesson 6: Other Considerations

## MODULE 5 - OVERVIEW OF DEEP LEARNING

- Lesson 1: Overview of Deep Learning
- Lesson 2: Deep Learning Fundamentals
- Lesson 3: Activation and Loss Functions
- Lesson 4: Regularization
- Lesson 5: Case Study

## MODULE 6 - RECURRENT NEURAL NETWORKS

- Lesson 1: Recurrent Neural Networks
- Lesson 2: Long Short Term Memory
- Lesson 3: Transformers and Attention
- Lesson 4: Time Series Prediction with RNNs

# PROGRAM AGENDA



## MODULE 7 - INTRODUCTION TO NATURAL LANGUAGE PROCESSING

- Lesson 1: Introduction to Natural Language Processing
- Lesson 2: Timeline of NLP
- Lesson 3: Working with Text Data
- Lesson 4: Feature Extraction and Embeddings

## MODULE 8 - TEXT SUMMARIZATION

- Lesson 1: Text Summarization
- Lesson 2: Sentiment Analysis
- Lesson 3: Topic Modelling
- Lesson 4: Case Study

## MODULE 9 - LARGE LANGUAGE MODELS

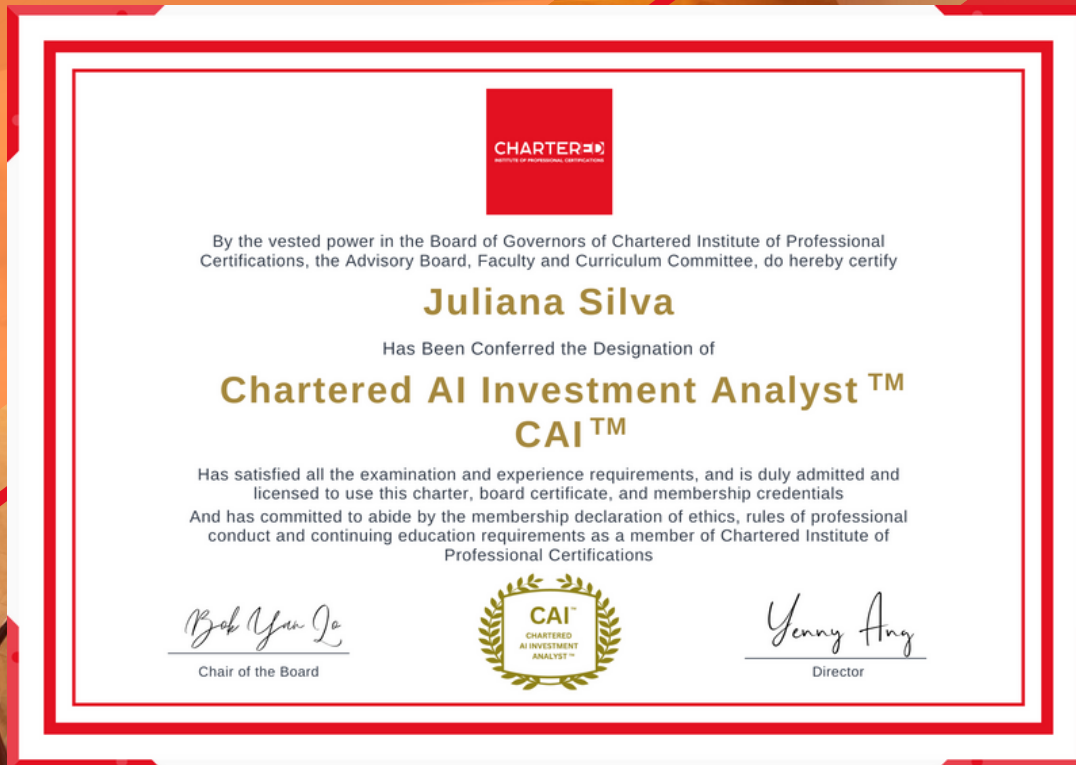
- Lesson 1: Large Language Models
- Lesson 2: Setting Up ChatGPT
- Lesson 3: Applications for Investment Analysis
- Lesson 4: Prompting LLMs Effectively
- Lesson 5: Advanced Usage

## MODULE 10 - PROMPT ENGINEERING

- Lesson 1: Prompt Engineering
- Lesson 2: Model Explainability
- Lesson 3: Framework for Applying AI
- Lesson 4: Case Study
- Lesson 5: Final Recap

## FINAL EXAMINATION

# YOUR CHARTER DESIGNATION



Chartered Institute of Professional Certifications' programs are unique as they provide you with professional charter designations and marks that can be used across your lifetime once you have completed our programs.

Upon completing the program and passing the exam, you will receive the prestigious **Chartered AI Investment Analyst (CAI™)** designation. Developed by the esteemed **Chartered Institute of Professional Certifications**, a leading authority in professional certifications, this industry-recognized trademarked charter distinguishes your profound expertise in the theoretical and practical deployment of advanced AI models for robust investment strategies, decision-making processes, and financial analysis framework. The program's content has been independently accredited and certified by **CPD**, ensuring that it meets the highest standards in continuing professional development. This distinguished designation will not only elevate your credibility but also enhance your marketability to potential employers or clients, making you stand out as a highly skilled and knowledgeable AI investment analyst.



# ABOUT US

49,525

Business Leaders Have  
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Certifications Since 2009

390

Certified and Fully  
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87%

Chartered Leaders Have  
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## Chartered Institute of Professional Certifications

All of Chartered Institute of Professional Certifications programs are fully accredited programs. The professional charters and designations are trademarked credentials that can only be used by professionals who have completed and passed our accredited program. It is also independently accredited by CPD as adhering to the highest standards of continuing professional principles.

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# OUR FACULTY DIRECTORS

We Collaborate With  
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# CONTACT US TODAY

We Thank You for Your Ongoing Support  
of Our Programs

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