



AI Certification Program

AI + FINANCE AGENT



AI CERTS®

AI⁺

Finance Agent™

Executive Summary

The AI+ Finance Agent certification program equips professionals with the skills to apply artificial intelligence in financial services. The course covers key AI concepts such as machine learning, natural language processing, and data analytics, focusing on their applications in areas like algorithmic trading, risk management, fraud detection, and customer service automation. Participants will gain hands-on experience with AI tools used to enhance financial decision-making, improve forecasting accuracy, and optimize investment strategies. This certification prepares individuals to drive innovation in the finance industry, enhancing operational efficiency and creating data-driven solutions for modern financial challenges.



Prerequisites

- **Basic Knowledge of Financial Markets** – Understanding of stock markets, trading, and financial instruments.
- **Familiarity with Machine Learning** – Basic concepts and algorithms of machine learning.
- **Programming Skills** – Proficiency in Python or similar languages for coding.
- **Statistical Analysis Understanding** – Knowledge of data analysis and statistical methods.
- **Interest in Financial Technology** – Enthusiasm for applying AI to solve financial challenges.

Exam Blueprint

Number
of Questions

50

Passing
Score

35/50 or 70%

Duration

90 Minutes

Format

**Online via AI
Proctoring platform**

Question Type

**Multiple Choice/Multiple
Response**

Exam Overview

Module	Weight
Introduction to AI Agents in Finance	10%
Building and Understanding AI Agents in Finance	10%
Intelligent Agents for Fraud Detection and Anomaly Monitoring	10%
AI Agents for Credit Scoring and Lending Automation	10%
AI Agents for Wealth Management and Robo-Advisory	10%
Trading Bots and Market-Monitoring Agents	10%
NLP Agents for Financial Document Intelligence	10%
Compliance and Risk Surveillance Agents	10%
Responsible, Fair & Auditable AI Agents	10%
World Famous Case Studies	10%
	100%

Certification Modules

Module 1

Introduction to AI Agents in Finance

1.1 Understanding AI Agents in Finance vs Traditional Financial Automation

1.2 The Evolution of AI Agents in Financial Services

1.3 Overview of Different Types of AI Agents in Finance

1.4 Importance of Agent Autonomy and Task Delegation in Financial Settings

1.5 Key Differences Between AI Agents in Finance and Traditional Automation

1.6 Hands-On Activity: Exploring AI Agents in Finance

Module 2

Building and Understanding AI Agents in Finance

2.1 Architecture of AI Agents in Finance

2.2 Tools and Libraries for Agent Development

2.3 AI Agents vs. Static Models

2.4 Overview of Agent Lifecycle

2.5 Use Case: Customer Support Agents in Banks for Handling KYC, FAQs, and Transaction Disputes

2.6 Case Study: Bank of America's Erica: A Virtual Financial Assistant that Handles 1+ Billion Interactions Using Predictive AI

2.7 Hands-On Activity: Building and Understanding AI Agents in Finance

Module 3

Intelligent Agents for Fraud Detection and Anomaly Monitoring

3.1 Supervised/Unsupervised ML for Fraud Detection

3.2 Pattern Analysis & Behavioural Profiling

3.3 Real-time Monitoring Agents

3.4 Real-World Use Case: AI Agents Monitoring Transaction Behaviour and Flagging Anomalies for Real-Time Fraud Detection in Digital Wallets

3.5 Case Study: PayPal's AI System Uses Graph-Based Anomaly Detection Agents to Flag 0.32% of All Transactions for Fraud with 99.9% Accuracy

3.6 Hands-On Activity: Intelligent Agents for Fraud Detection and Anomaly Monitoring

Module 4

AI Agents for Credit Scoring and Lending Automation

4.1 Feature Generation from Non-Traditional Credit Data

4.2 Explainability (XAI) in Credit Decisions

4.3 Bias Mitigation in Lending Agents

4.4 Real-World Use Case: Agents Assessing New-to-Credit Individuals Using Transaction and Mobile Data

4.5 Case Study: Upstart's AI-Based Lending Platform Approved by CFPB Showed 27% Increase in Approval Rate and 16% Lower APRs for Borrowers

4.6 Hands-On Activity: AI Agents for Credit Scoring and Lending Automation

Module 5

AI Agents for Wealth Management and Robo-Advisory

5.1 Personalization Using Profiling Agents

5.2 Portfolio Rebalancing Algorithms

5.3 Sentiment-Aware Investing

5.4 Real-World Use Case: AI Agent Adjusting Portfolio Weekly Based on Financial Goals and Market Trends

5.5 Case Study: Wealthfront's Path Agent Uses Financial Behavior Modeling to Recommend Personalized Savings Goals and Investment Paths

5.6 Hands-On Activity: AI Agents for Wealth Management and Robo-Advisory

Module 6

Trading Bots and Market-Monitoring Agents

6.1 Reinforcement Learning in Trading Agents

6.2 Predictive Modelling Using Historical Data

6.3 Risk-Reward Threshold Management

6.4 Real-World Use Case: AI Trading Agents Performing Arbitrage Between Crypto Exchanges

6.5 Case Study: Renaissance Technologies Utilizes AI to Automate Short-Hold Trades, Generating Consistent Alpha via Adaptive Trading Bots

6.6 Hands-On Activity: Trading Bots and Market-Monitoring Agents

Module 7

NLP Agents for Financial Document Intelligence

7.1 LLMs in Earnings Call and Filings Analysis

7.2 AI Summarization and Event Detection

7.3 Voice-to-Text and Key-Point Extraction

7.4 Real-World Use Case

7.5 Case Study: BloombergGPT — A Financial-Grade Large Language Model

7.6 Hands-On Activity: NLP Agents for Financial Document Intelligence

Module 8

Compliance and Risk Surveillance Agents

8.1 AI for Anti-Money Laundering (AML) and Know Your Business (KYB)

8.2 Regulation-aware Rule Modelling

8.3 Transaction Graph Analysis

8.4 Real-World Use Case: Agent tracking suspicious cross-border money transfers in real-time across multiple accounts.

8.5 Case Study: HSBC uses Quantexa's AI agents to trace AML networks, increasing suspicious activity detection by 30%.

8.6 Hands-On Activity: Compliance and Risk Surveillance Agents in Financial Systems

Module 9

Responsible, Fair & Auditable AI Agents

9.1 Governance Frameworks for AI in Finance (RBI, EU AI Act)

9.2 Transparency and Auditability in Decision Logic

9.3 Fairness and Explainability

9.4 Real-World Use Case: Auditable AI Agent Logs Used During Internal Policy Audits to Ensure Fair Lending practices.

9.5 Case Study: Wells Fargo implemented internal AI fairness reviews for lending bots post regulatory scrutiny.

9.6 Hands-On Activity: Responsible, Fair & Auditable AI Agents in Finance

Module 10

World Famous Case Studies

10.1 Case Study 1: JPMorgan's COiN Platform

10.2 Case Study 2: AI in Fraud Detection - PayPal's Decision Intelligence

10.3 Case Study: AI-Driven Credit Scoring - Upstart's Lending Platform

10.4 Capstone Project

10.5 Key Takeaways of the Module

Certification Outcome

Upon completing the AI + Finance Agent course, learners gain a comprehensive understanding of how artificial intelligence is transforming the finance industry. Participants become proficient in leveraging AI-powered tools for document review, fraud detection, and credit scoring. They develop hands-on skills in building and deploying AI agents, using real-world case studies from JPMorgan, PayPal, and Upstart to enhance efficiency, reduce risks, and improve decision-making. This course equips learners with the knowledge and practical experience necessary to contribute effectively to AI-driven financial solutions and innovations in any financial institution.



Market Insight

The AI + Finance Agent certification aligns with the growing demand for AI expertise in finance. As the industry adopts AI for enhanced decision-making, fraud detection, and automation, professionals equipped with AI skills are poised to drive innovation and efficiency in financial institutions.



Value Proposition

This certification empowers learners with hands-on experience in AI applications for finance, including document automation, fraud detection, and credit scoring. With real-world case studies and practical AI agent development, it enhances job readiness, offering a competitive edge in the evolving finance sector.



Additional Features

The course includes interactive case studies from top financial institutions, access to practical AI tools, and real-time project work. Learners also receive a capstone project to demonstrate their ability to deploy AI agents in real-world financial scenarios, ensuring applied learning.

AI Experts



Jason Kellington

AI Expert

As a consultant, trainer, and technical writer with more than 25 years of experience in IT, I specialize in the development and delivery of solutions focused on effective and efficient enterprise IT.



Justin Frébault

AI Expert

I'm a boutique data consultant specializing in data mesh and lakehouse solutions. I've dedicated my career to helping organizations transform their approach to data, moving beyond mere knowledge.



J Tom Kinser

AI Expert

I have over forty years of experience in software development, data engineering, management, and technical training. I am a Microsoft Certified Trainer and a software developer, holding multiple certifications.



Terumi Laskowsky

AI Expert

Country Manager for Global Consulting Services in Japan, Specialties: Information Security (Compliance, Policy, Application, Host, Network)



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