



Applied Financial Analytics with Machine Learning and GenAI: Insight → Impact

Page 1 of 2



COURSE LENGTH

Two 2-Hour Virtual Sessions or
One Full Day In-Person

DESCRIPTION

This course equips finance professionals to apply machine learning and GenAI tools to real-world finance challenges—safely and effectively. Participants will learn to frame use cases, accelerate workflows and deliver executive-ready insights through hands-on labs and a mini project designed to withstand CFO-level scrutiny.

Deliverables include a mini project with documented assumptions and executive-ready outputs, visual dashboards and narrative summaries and a risk and validation checklist for ML/GenAI use in finance.

LEARNING OBJECTIVES

- Frame finance use-cases for ML (regression, classification, clustering, time-series) and implement them responsibly.
- Use GenAI to accelerate data wrangling, feature engineering, commentary drafting and scenario modeling.
- Visualize and communicate results with executive clarity, including risks and limitations.
- Deliver a mini project that demonstrates real-world impact and withstands executive review.

AGENDA

Decision Intelligence & ML Foundations

- Decision intelligence for finance
 - Framing use cases
 - Metrics that matter
 - ML Process hygiene
- ML that fits finance
 - Four families of algorithms
 - Data readiness and validation
 - Guardrails for bias and overfitting
 - Live demos

Visualization, Ethics & Hands-On Labs

- Advanced visualization for insight
 - Bubble charts, Sankey diagrams
 - Drill/focus/pivot techniques
 - Moving from “chart” to “action”
- Risk, governance and ethics
 - Interpreting Models output
 - Documenting assumptions
 - Ensuring reproducibility

Continued on next page



Applied Financial Analytics with Machine Learning and GenAI: Insight → Impact

Page 2 of 2



- Hands-on Labs (select 1-2 per cohort):
 - Expense prediction (regression, drivers, sensitivity)
 - Fraud/anomaly detection (classification on AP/AR)
 - Portfolio clustering (grouping SKUs/customers for pricing/credit)
 - Time-series forecasting (cash, bookings or COGS with scenario overlays)