

Course Overview

Nowadays, hedge funds are leveraging on masses of data to forecast previous unpredictable financial market movements and achieve better tactical and strategic optimal asset allocation. Data mining and algorithms can help professionals to scan and identify key patterns across trading opportunities and profit in timing the market. This course will elaborate on how AI architecture can inform investment decisions, by generating trading strategies able to exploit arbitrage opportunities and optimize portfolios.

The scarcity of students ready to act in the intersection between Finance and Data Science is now colliding with a realization that this expertise is critical in the hedge funds industry both in keeping pace with traditional players and tech-savvy new entrants.

Learning Outcomes

Upon completing this course, students will be able to:

- Define the characteristics of the archetypical hedge funds
- Describe their structure, services, and the common investors they attract
- Assess their performance and risk, using the key metrics (i.e. Sharpe and information ratios)
- Calculate the performance fees based on high-water mark and hurdle clauses

Topics covered

- Description of Hedge Fund Investing
- Principles of Tactical Asset allocation: a regime-change-based quantitative approach
- Algorithmic trading: forecasting Macro approach to global investing
- The Global Asset classes
- Current Global Macroeconomic Environment.
- Hedge Fund Investment game – Team Formation
- Portfolio Strategy sessions regime changes and reducing fat tails
- Assessment of market-implied Monetary Policy
- Approaches to Exchange Rate Valuation
- Principles of Local Currency Government Bond investing
- Sovereign Risk assessment and modeling
- Willingness vs Ability to pay: the legal aspects of Sovereign Creditworthiness
- Investment Game Strategy Review – End of Hedge Fund Investment Game
- Principles of Local Currency Government Bond investing

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