

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Master of Financial Mathematics, February 2026

Cambridge, MA
2024 - Present

- Dean's Fellowship recipient recognising an outstanding academic record, personal achievements, and professional promise
- Financial Engineering concentration - Mathematics, Machine Learning, Fixed Income Securities & Derivatives
- GRE: Quantitative Reasoning - 170 (94th Percentile)

LONDON SCHOOL OF ECONOMICS

BSc Mathematics and Economics

London
2021 - 2024

- Classes: PDEs, Real Analysis, Derivatives, Operations Research, Optimisation Theory, Microeconomics, Macroeconomics
- 3rd Place cash prize in LSE's 2022 Actuarial Case Competition, judged by professional actuaries

ST PAUL'S SCHOOL

A-Level Mathematics(A), Further Mathematics(A*), Economics(A*) and Physics(A*)*

London
2016 - 2021

- Burkhill Prize in Mathematics for top performance in examinations, quantitative analysis & presentation of academic research
- Black-Scholes Project: Titled "What are the limitations of the Black-Scholes model for derivatives", analysed delta hedging strategies and examined the limits of the model using the case study of Long-Term Capital Management (LTCM); constructed Monte Carlo simulations on python of vanilla stock options to compare payoff values with the Black-Scholes model

EXPERIENCE

BLUECREST CAPITAL MANAGEMENT

Work Experience

London
Summer 2024

- Legal & managerial overview of BlueCrest and counterparty relationships with sell-side institutions
- Insight into discretionary G10 & RV rates trading strategies including cross currency swaps and STIR products
- Overview of semi-systematic equity & FX volatility strategies and machine learning applied to portfolio optimisation

EISLER CAPITAL

Quantitative Strategist Intern

London
Summer 2023

- Provided central bank balance sheet forecasts and research to the firm's portfolio managers managing an excess of \$3bn
- Interned as a quantitative strategist, implemented Black Scholes & Monte Carlo on python
- Modelled Markowitz portfolio optimisation to 50 stocks, obtaining monthly updated optimal weights and backtested
- Applied a stochastic volatility model and variance reduction model to price Asian options
- Programmed a new algorithm to compute implied volatility on C++ and collated FX historical data
- Derived a second order derivative to obtain a precise formula for dual digital option prices and applied to C++
- Created a global QT forecast to model balance sheets implications on ACM Term Premium, still used in active research
- Conducted in-depth analysis on La Banca d'Italia's balance sheet, forecasting an estimate for BTP issuance
- Automated an instantaneous plot of the Federal Reserve's dot projections against market forecasts, such as OIS

MACQUARIE GROUP

Spring Internship

London
Spring 2022

- Won a high-frequency trading game involving adjusting strategies based on changing market conditions
- Enrolled in upskilling sessions on financial markets & services and networking
- Completed workshops on debt investments and the lifecycle of assets; worked on advisory mock deal negotiations with Macquarie's infrastructure advisory team, including analysing and researching deals before negotiating a deal

BARCLAYS

Investment Banking Shadowing

London
Winter 2019

- Explored functions and components of banking (research, fixed income, FX, equity sales & trading, treasury and structuring)
- Collaborated with the research team on summarising MPC meetings to submit for institutional clients through Barclays Live
- Observed the research team's interaction with Sales to conduct pre-trade analysis across international markets

ADDITIONAL INFORMATION

- Languages: English (native), French (native)
- Programming: Python (Numpy, Pandas, PyTorch, TensorFlow, Scikit-learn, Seaborn), R, Stata
- Tutoring: Volunteer at Hammersmith Academy, lead tutor at Wonders of Maths responsible for students preparing for Olympiads
- Sports: Aikido (black belt), Judo, alpinism, fencing