

# Archuthan Mohanathanasan

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London, UK

## EDUCATION

King's College London

(Expected) 2028

(Integrated) Master of Science in Computer Science

Relevant Modules: Foundations of Computing (Discrete Mathematics), Data Structures, Programming Practice and Application (Java)

St Dominic's Sixth Form College

September 2022 – June 2024

A-Levels: Mathematics (A\*), Further Mathematics (A\*), Physics (A), Chemistry (B)

## PROFESSIONAL EXPERIENCES AND ACHIEVEMENTS

(Independent) Crypto and Futures Trading

September 2024 – August 2025

- Achieved nearly 2x return in a single day by applying quantitative strategies to analyse volatility, trend alignment, and momentum indicators.
- Strengthened risk management skills through dollar-cost averaging and disciplined capital allocation.

*Young Professionals Seminar: Careers in Science and Engineering*

September 2023

- Explored how technological innovations drive improvements in both financial and industrial sectors.
- Researched Spectris's role in the FTSE 250, recognising links between technology and financial trading

## CERTIFICATIONS AND COURSES

Bank of America

Sales and Trading Analyst Job Simulation (Forage)

Oct 2025

- Completed a job simulation focused on analysing market trends and delivering client-centric solutions within the sales and trading division.
- Conducted in-depth data analysis using tools like Excel and Bloomberg to identify key financial trends, assess market dynamics, and align insights with client objectives.
- Researched and proposed strategic recommendations for optimizing trade execution processes and enhancing workflow efficiency using automation and process analysis.
- Developed a client proposal outlining tailored investment strategies, leveraging data-driven insights to address client goals such as portfolio diversification, sustainability, and moderate growth.

Goldman Sachs

Risk Virtual Work Experience (Forage)

Oct 2025

- Completed a job simulation involving risk assessment and management for Goldman Sachs' Risk team.
- Conducted individual credit risk analysis using quantified financial data, enhancing skills in personal finance evaluation.
- Applied critical thinking and quantitative analysis to real estate scenarios, interpreting data to assess financial implications.
- Developed and recommended risk mitigation strategies, demonstrating practical application of financial principles and market understanding.

Citi

Markets Quantitative Analysis Virtual Experience (Forage)

June-Oct 2025

- Gained hands-on experience in financial mathematics, derivative pricing, and structured product design.
- Modelled commodity-linked instruments (coffee) using pricing equations, Value at Risk (VaR), and Monte Carlo simulations.
- Developed and implemented hedging strategies with options and swaps to manage exposure in coffee futures.
- Analysed market, credit, and operational risks through quantitative assessment and scenario analysis.

**JPMorgan Chase & Co.**

**Quantitative Research Virtual Experience Program on Forage**

**June 2025**

- Completed a simulation focused on quantitative research methods
- Analysed a book of loans to estimate a customer's probability of default
- Used dynamic programming to convert FICO scores into categorical data to predict defaults

## **PROJECTS**

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**Options Pricing & Risk Analysis Project (Independent)**

**September 2025**

- Implemented Python Monte Carlo simulation for European option pricing achieving a standard error of \$0.0004 using variance reduction; validated against Black-Scholes, performed sensitivity analysis, Greeks calculations, visualized payoff distributions and SE heatmaps.

## **SKILLS AND INTERESTS**

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**Technical Skills:** Java, Python, HTML/CSS, R (learning in progress), C++ (learning in progress), Excel

**Soft Skills:** Analytical Thinking & Problem-Solving, Communication Skills, Time Management

**Interests:** Quantitative finance, algorithmic trading, and computational problem-solving, cryptocurrency/stock market analysis, financial investments/trading.