Jonathan Kelly

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EDUCATION

University of Cambridge - MASt, Mathematics and Statistics (Part III)

Oct 2025 - June 2026   Cambridge, United Kingdom

- **Relevant Modules:** Modern Statistical Methods, Statistical Learning in Practice, Stochastic Calculus with Applications to Finance, Information Theory, Advanced Probability.
- **Student Societies:** Algorithmic Trading Society (CUATS), Cambridge University Entrepreneurs (CUE)

Trinity College Dublin - B.A (Hons), Mathematics

Sep 2020 - May 2024   Dublin, Ireland

- **Degree Grade:** First Class Honours (83%) / Ranked among the top 10 students in my cohort.
- **Academic Awards:** Gold Medal 2023/2024 and Entry Exhibition Award 2020.
- **Relevant Modules:** Linear Algebra, Statistics, Probability, Artificial Intelligence, Partial Differential Equations, Algorithms and Data Structures.

EXPERIENCE

InstaMark - Co-Founder

Oct 2025 - CURRENT   Cambridge, United Kingdom

- Technology Developer at EdTech startup — built the MVP for a pilot program implemented in a Cambridgeshire school.

Murex - Credit Risk Consultant

Jun 2024 - Aug 2025   Dublin, Ireland

- Worked with development teams to deliver Credit Risk and xVA solutions to clients.
- Delivered a project on alternative aggregation methodologies for various credit risk metrics, providing recommendations to improve exposure accuracy for the credit risk analytics team.
- Leveraged knowledge in Mathematical Modeling, Python, Numpy, SQL, Spark, Linux, ETL pipelines.

PwC - Technology Consultant (Internship)

Jun 2023 - Jul 2023   Dublin, Ireland

- Worked as an analyst on the automation of revenue settlements for a client project for eSW (eShopWorld).

PROJECTS

Combined Defensive Allocation & Kalman Filter Pairs Strategy   Nov 2025 - Jan 2026

- Developed a multi-strategy leveraged portfolio integrating Strategic Gold Allocation, Defensive Adaptive Asset Allocation (DAA), and Market-Neutral Pairs Trading.
- Achieved a Sharpe Ratio of ~2.0 and a maximum drawdown of 6% over 6-month backtests.
- **Utilized:** Python, QuantConnect API, Time Series Analysis, Kalman Filtering, Risk Management.

Finite Element Methods (FEM) in Mathematical Finance   Oct 2023 - Apr 2024

- Studied the Finite Element Method to numerically solve Partial Differential Equations (PDEs), specifically focusing on the Black-Scholes model for option pricing.
- **Utilized:** MATLAB, Numerical Integration, Linear Algebra, PDE Theory.

SKILLS

Languages: Native English, B1 Level Spanish.

Programming Languages: (Proficient) Python, MATLAB, SQL, **(Familiar)** R, Java, C.

Technologies/Frameworks: (Proficient) Pandas, Numpy, Matplotlib, Git; **(Familiar)** Tensorflow.