Izaac Mammadov

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EDUCATION

- **Corpus Christi College, University of Cambridge**   Cambridge, UK
  B.A. (Hons) — Mathematical Tripos [Mathematics]   *October 2019 – June 2022*
  - High 1st Class, scoring 84% and ranked 18th out of 250 in my cohort.
  - Courses examined include Applied Probability, Mathematics of Machine Learning, Principles of Statistics, Statistical Modelling, Statistical Physics and Stochastic Financial Models.
  - Computational Projects examined included "Option Pricing in Mathematical Finance" and "The Tennis Modelling Challenge" (where the challenge in question was to beat tennis betting markets).
  - Awarded two scholarships in the name of Edward Byles Cowell for academic excellence and was presented to the Worshipful Company of Cutlers for the Richard Metheringham Mathematics Prize.

- **The Latymer School**   London, UK
  A Levels — Mathematics, Further Mathematics, Physics, Chemistry   *September 2012 – June 2019*
  - A*, A*, A*, A* in A Levels and S, S, S in STEP Mathematics Examinations.
  - Achieved Silver Medal in the British Mathematics Olympiad (awarded to the top 50 students in the country).

WORK EXPERIENCE

- **The Quarry LP**   Remote
  Quantitative Researcher   *January 2024 – Current*
  - **Strategy Backtesting**: Backtested medium-frequency quantitative strategies and created reports outlining their profit metrics and analysis on their hyperparameters.
  - **Portfolio Optimisation**: Created interactive pages to display results surrounding optimal portfolio allocation and calculating mean-variance efficient portfolios.
  - **Derivatives Pricing**: Working on pricing a variety of vanilla and exotic derivatives for the purposes of backtesting and execution.

- **Wintermute Trading**   London, UK
  Algorithmic Trader   *July 2022 – November 2023*
  - **Exchange Integration**: Integrated centralised cryptocurrency exchanges' endpoints using WebSockets, REST and FIX protocols. This included working on Order Entry, Order Feed and Asset Transfer Requests/History for many different exchanges.
  - **Counterparty contact**: Received, priced, and settled Voice OTC and TWAP requests over chat. Configured risk-limits and parameters for RFQ API trading.
  - **Analytics**: Developed safety and P&L analysis tools and integrated them into existing GUIs. Utilised the tools to adjust the inputs of various market making strategies.
  - **Launches**: Facilitated numerous token launches and listings ensuring liquid books from the outset, and gradually taking advantage of arbitrages available across different exchanges.
  - **Strategy improvement**: Iteratively improved upon strategy templates to work more profitably under a wider set of market conditions and edge-case scenarios, as well as refactoring huge portions of the code.
  - **Automation of Credits Settings**: Personally undertook a research/coding project to automate the main parameter inputs to market-making strategies by A-B testing and creating a regression on the markout profits.
  - **Options**: Oversaw and improved Crypto Options trading desk with automated market-making strategies and RFQ quoting.

- **Flow Traders**   Amsterdam, The Netherlands
  Trading Intern   *June 2021 – August 2021*
  - **Project**: Collaborated in a team of five to find, implement, backtest and trade a variety of mean reversion strategies focused on European equities.
  - **Strategies for project**: Exploited correlations between stocks and their indices, baskets, peers, and relevant assets by fitting historical data to a robust linear regression model.

INTERESTS, SKILLS AND OTHER ROLES

- **Computer Skills**: Fluent in Python from day-to-day work. Experienced in MatLab and R from university. Familar with Java and C++ from personal projects. Regularly use MongoDB and SQL.

- **Foreign Languages**: Raised in a bilingual household speaking Russian and English, as well as Azerbaijani.

- **Interests and Sports**: Competed for my College in Rowing and Ultimate Frisbee. Certified Grade 6 Trumpet and played Trumpet in Jesus College Big Band. Interested in promoting Free and Open-Source software use and privacy-respecting software more broadly.

- **Other roles**: Acted as a mentor for the Clydeside Project, ZeroGravity and Maths Advantage and a coach for Universify Education (all educational access charities). Was a member of a committee that rewrote my JCR's constitution from scratch. Used to lead maths tutoring for poorly performing schools in Cambridgeshire free of charge.