

Jay Shah

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Portfolio: <https://jayrshah.vercel.app/> | GitHub: <https://github.com/jays41>

EDUCATION

King's College London

BSc Computer Science (expected grade: 1st Class Honours)

Expected Graduation May 2026

Roundwood Park School

2016-2023

- A-Levels: Maths (A*), Further Maths (A*), Computer Science (A), Physics (A)
- GCSEs: 9999999999

ACHIEVEMENTS

Mathematical Olympiads

- Junior Mathematical Olympiad (2018): Achieved Distinction and Medal, ranking in the top 200 nationally.
- Intermediate Mathematical Olympiad – Cayley (2019): Earned Distinction and Medal, placing in the top 100 nationally.

EXPERIENCE

Ashbury Global

Data Administrator

London / Remote

July – September 2024

- Cleansed and validated client data for major retailers such as Aldi, Tesco, Waitrose, and Greggs, ensuring accuracy and readiness for migration to the company's new system
- Automated the data validation process using Python, enforcing accuracy and improving efficiency by up to 12 times compared to the manual approach previously used by the team

Valtech

Software Developer Intern

London

June – July 2024

- Collaborated in a team responsible for developing and integrating front-end components for Ocado Technologies
- Independently designed and implemented new features using React
- Critiqued and reviewed code solutions proposed by team members before deployment
- Designed tests using the Jest framework with TypeScript to guarantee code correctness and reliability

Armalytix

Software Developer Work Experience

London / Remote

May 2022

- Conducted research and development into the use of machine learning algorithms with TensorFlow to categorise transactions in the company's database
- Automated API testing using the Postman REST client, enabling scalable and repeatable test suites for continuous integration
- Developed and automated end-to-end tests using the Playwright framework in Python, reducing manual testing time

Tutoring roles

Computer Science, Maths and English Tutor

Hertfordshire / Remote

May 2024 – Present

- Delivered lessons to students ranging from KS1 to A-Level, both in-person and online, for Kumon, managing groups of up to 25 students.
- Provided personalised one-to-one tutoring to 9 GCSE and A-Level students, creating lesson plans and interactive materials to address individual student needs, enhancing engagement

PERSONAL PROJECTS

King's Capital (King's Business Club)

Senior Quantitative Trading Associate

October 2024 - Present

- Developed and back-tested systematic trading strategies (market-neutral, factor tilt, beta-neutral) in Python and C++
- Applied mean-variance optimisation, alpha generation, and risk-neutral hedging
- Presented findings to Managing Directors and VPs in Deutsche Bank's Quant team, currently implementing refinements based on their feedback
- Co-authored a research paper exploring FinBERT applications for sentiment analysis in financial markets
- Built and deployed a FinBERT-based sentiment analysis platform that is now actively used by members of the society
- Mentored members of the society's academy, teaching Python and basic portfolio theory

Valkyrie

Co-Founder and Full-Stack Engineer

- Co-founded a customer feedback platform, developing the product from concept to launch with paying customers across hospitality and service industries
- Built the full-stack platform using React/Next.js and Ruby on Rails with a PostgreSQL database, implementing a GPT-4 integration for sentiment analysis and automated task generation from customer feedback
- Developed multi-tenant architecture with Redis caching and API rate limiting optimisation to handle concurrent business operations efficiently

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, C++, Java, Scala, HTML/CSS, SQL

Frameworks and Libraries: React, Node.js, Django, Flask, NumPy, Pandas, TensorFlow