

# KRIDHAY MAHESH

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## EDUCATION

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### Imperial College London

London, UK

*MEng Electronic and Information Engineering with a Year Abroad*

*October 2021 – June 2025*

- Grade: First Class Honours
- Selected as the only student in cohort of ~140 to spend my fourth year at the National University of Singapore
- Taught weekly tutorial sessions for the C++ Programming Module, working as an Undergraduate Teaching Assistant

## EXPERIENCE

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### Behaviour Lab

London, UK

*Forward-Deployed Software Engineer*

*September 2025 – present*

- Working across the Software Engineering and Forward-Deployed (Advisory) Teams at a fintech startup
- Collaborated with equity strategists and clients to understand fund-specific context, and developed custom financial signal and data processing algorithms in Pandas tailored to each fund's weighting rules, benchmarks, and team structure
- Automated data publishing by designing an asynchronous polling system, deployed on AWS Lambda and integrated into the existing Step Functions pipeline, eliminating a recurring full day manual process
- Delivered a data source feature end-to-end, implementing backend services, database migrations and frontend components using TypeScript and Next.js, to meet client requests for full transparency over their incoming data
- Migrated a client specific service into a modular and reusable feature based architecture, enabling the business to scale and reducing runtime by 3x
- Coded LLM based agents with authenticated access to internal APIs, dynamically pulling context from our services to automate document filling workflows within the product

*Forward-Deployed Software Engineer Intern (Industrial Placement)*

*April 2024 – August 2024*

- Built and deployed an ETL pipeline in Python to ingest and process data from internal databases and client holding data
- Decoupled internal Pydantic/Pandera validation schemas from API responses, isolating core logic from dependencies
- Designed an alert system with an event-sourced AWS DynamoDB model, ensuring daily execution of critical functions

### Citi

London, UK

*ICG Summer Technology Analyst*

*June 2023 – August 2023*

- Implemented new features for various applications within the Commodities Team using TypeScript, including developing automated tests and calculating performance metrics
- Created a dashboard using Grafana and InfluxDB to analyse the Pricer Application usage statistics, allowing for performance optimisation based on user behaviour

## PROJECTS

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### Interpretable Medical Models Using ML and Symbolic Regression (Thesis)

*September 2024 - May 2025*

- Adapted frameworks from existing research and implemented novel Symbolic Regression approaches to develop interpretable models for prognosticating outcomes in SICH patients
- Benchmarked developed models against traditional ML techniques and existing clinical scoring systems to validate the competitiveness of my SR based models

### Optiver Algorithmic Trading Challenge (IC Hack '24)

*February 2024*

- Implemented Market Making, Arbitrage and Pairs Trading algorithms using Python and Optibook
- Consistently achieved top 3 profit on live exchanges against 30+ teams, and selected for the final to present our strategy

### RISC-V Processor and Compiler

*December 2022 - March 2023*

- Collaborated with a team to develop a pipelined RISC-V 32-bit processor with a reduced ISA using System Verilog
- Built a C90 compiler in C++, implementing parsing, AST construction and code generation to produce RISC-V assembly

## ADDITIONAL INFORMATION

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**Programming Skills:** Python, C++, TypeScript, Rust, SQL, SystemVerilog

**Technologies:** AWS, Next.js, Pandas, MATLAB, Unity, Git, VTune

**Leadership:** Algorithmic Trading Society (Head of Corporate Relations) AI Furnace (Event Coordinator)

**Languages:** English (Native), Tamil (Intermediate)

**Interests:** Weightlifting, Muay Thai, Golf, Guitar