

WORK EXPERIENCE

Software Engineer

IMC Trading

Amsterdam, NL

Aug 2024—present

- Developing M.L pipeline used for trade-analysis, model-optimisation and strategy discovery on Delta 1 desk.
 - Setup dynamic data storage allowing researchers to leverage both US and EU research clusters. **[Pyarrow]**
 - Reduced data-ingestion times by 75% resulting in model turn-around times improving by 35%.
 - Automating “next-day” PnL reporting for trade-model performance evaluation (Brazil markets). **[Polars]**
- Developing market/order-feed visualization platform serving 250+ Traders, Researchers and Performance eng. in EMEA, before being adopted globally (US & India). System aggregates and enriches near real-time order-line data with market microstructure metrics, providing traders with actionable insights for faster decision-making and researchers with granular auto-trader performance diagnostics (trigger points, swings, hits, etc.).

Quantitative Software Engineer

ABN Amro—Generative A.I

Amsterdam, NL

Dec 2023—Aug 2024

- Optimized internal M.L speech-to-text application with a focus on cost reduction. **[Python, Pandas]**
 - Statistically benchmarked application before performing grid-search to find optimal speech-model parameters.
 - Parallelized CPU workloads to reduce CPU usage by 87% and improve response times 3.7x (8.5s → 2.25s).
 - Rolled-out optimization to other teams leading to €575k+ reduction in op. costs over the proceeding year.
- Implemented generalized internal-document search framework with document similarity matrix and fuzzy-search.

Quantitative Software-Engineer

J.P. Morgan—Fixed-Income Trading

London, U.K

Nov 2021—Aug 2023

- Designed and implemented Repo bulk-ticket trading application for 300 traders and middle-office users total.
 - Introduced dynamic price calculations and price validation of Repo trading instruments.
 - Added automatic Book resolution and support for Margin Cash trade instruments.
 - Optimized trade submission/execution latency by ~50% (60s → 35s @ 350 trade batches).
- Introduced Quarter-End trade-flow automation, managing the opening/closing of over 1500 positions per QE (used for position-rebalancing). Reducing trader manual input from 2-days → 30m (quarterly). **[Python, Pandas]**
- Optimized trade-reporting processes—reduced Auto>Returns Client reporting times from (15mins → 30s) and reduced daily failures (2 → 0), saving ~135mins of trader manual-input each week. **[Python, Pandas, SQL]**
- Onboarded (and subsequent mentorship) of two junior developers onto Athena web trade-workflow technologies.

Software Engineer

Countfire—Core Development

London, U.K

Dec 2018—Oct 2021

- Supported and built image-recognition software that automated manual estimation and quantity-surveying within the construction industry—focusing on data-analysis and application performance. **[Python, Pandas, SQL]**

EDUCATION

Master of Science in Statistics & Data Science

MSc | 4.0 GPA | Distinction

Ulster University, Ireland

Sept 2020—Sept 2021

- Graduated top of class—winning the Ulster University Seagate Prize.
- Research: Systematically categorized Alzheimer’s Disease using Graph-Neural-Networks. [doi/10.1049/htl2.12037]

Dentistry

R.C.S Pg. Dip. | 4.0 GPA | Distinction

UCLAN, U.K

Sept 2013—June 2018

- Graduated top of class—specialising in prosthodontic care.

SKILLS

Languages: Python (Polars, Pandas, Numpy, Plotly, FastAPI), C, SQL, Typescript

Areas of interest: Market-making, Options-theory, Trade-automation, Statistics and Probability

SELECTED PROJECTS

- Basis: Developed automated trading system analyzing cross-exchange basis opportunities in perpetual futures markets, incorporating funding rates, execution costs, and risk metrics.