Jake Bamrah

Amsterdam, NL

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WORK EXPERIENCE

Software Engineer — **Amsterdam, NL**
IMC Trading — *Aug 2024—present*

- Developing a market/order-feed visualization tool for trading and research to support trading decisions and auto-trader performance analysis. Used to enrich and display time-sorted snapshots of exchange order-lines.
- Formalizing trading-desk pricing-risk analytics scripts—moving from Jupyter notebooks to production-ready python—with a focus on providing more reliable and extensible price-discovery and risk applications (mainly Brazil and India desks). [**Pandas, Plotly, FastAPI].**

Software Engineer — **Amsterdam, NL**
ABN Amro—Generative A.I — *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 — **London, U.K**
J.P. Morgan—Fixed-Income Trading — *Nov 2021—Aug 2023*

- Led the Repo bulk-ticket trading application migration—migrating 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 tax-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.
- Provided direct trading support for fixed-income desk, developing an understanding of bond market mechanics.

Software Engineer — **London, U.K**
Countfire—Core Development — *Dec 2018—Oct 2021*

- Supported and built image-recognition software that automated the manual estimation and quantity-surveying within the construction industry.
- Developed data-analytics dashboard to monitor application performance, quantity-survey times and image-recognition success-rate. [**Python, Pandas, SQL]**

EDUCATION

Master of Science in Statistics and Data Science — **Ulster University, Ireland**
MSc | 4.0 GPA | Distinction — *Sept 2020—Sept 2021*

- Graduated top of class—winning the Ulster University Seagate Prize in MSc Data Science.
- Research: Systematically categorize Alzheimer's Disease using Graph-Neural-Networks. [doi/10.1049/htl2.12037]

Dentistry — **UCLAN, U.K**
R.C.S Pg. Dip. | 4.0 GPA | Distinction — *Sept 2013—June 2018*

SKILLS

Languages: Python (Pandas, Numpy, Plotly, FastAPI), C, SQL, Typescript
Areas of interest: Market-making, Trade-automation, Options-theory, 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.