Fraser Walker

647-612-9631 | fraserwalker23@gmail.com

PROFESSIONAL EXPERIENCE

Polar Asset Management Partners — Toronto, ON

Data Scientist, Analyst — Sept 2018 - Present

- Polar is Canada's largest hedge fund with more than USD $5bn in AUM. Experienced in assisting the Investment Decision process, across asset classes and strategies, with data-driven analysis.

Project Highlights with Polar

Convertible Arbitrage. A semi-supervised, rule-based approach to Delta Hedging.

- Developed production-level strategy algorithm to compute trade signals for delta hedging Convertible Bond (CB) positions.
- Created custom (generic) back-testing framework, and then tailored it to suit a Convertible Arbitrage strategy.
- Produced novel data visualization to assist with strategy analysis, report on strategy performance.
- Developed in Python, R, SQL, Dash+Plotly+RShiny.

Risk Arbitrage. Quantitative analysis, systematic investment strategy development in Mergers & Acquisitions.

- Co-created 'quantimental' Risk Arb strategy. $100mm USD of capital allocated to strategy at its peak.
- Created, administered a proprietary SQL database of M&A transactions.
- Engineered an ETL pipeline to consolidate data from vendors into our database.
- Naïve Bayes classifiers developed to mine unstructured text data.
- Extensive data viz. produced to support feature engineering, drive strategy development for the asset class.
- Mean-variance analysis used to create market portfolio benchmark for historical back-testing.

Business Intelligence. Firm, Strategy -level performance reporting.

- PDF manipulation app developed and deployed for Operations team; cross-reference trade confirmations from custodian with internal data and prepare docusign for Legal team. App saved countless hours for Operations team.
- Broker analytics reporting. Prepared systematic reports to be circulated externally with Brokers to demonstrate where they stand in relation to others across strategies, asset-classes in terms of business (trade volume, commissions, etc.).
- Web-based Dashboards created to dissect performance of each Manager in the flagship Multi-Strategy fund; PnL, Capital Use, Sharpe Ratios, Indexed Relative Returns, Correlations amongst each other + external benchmarks, etc.

Employment and Social Development Canada, Govt. of Canada — Ottawa, ON

Junior Researcher, Service Research — *January 2017 – May 2017*

- Developed predictive models for Job Bank and MSCA teams using NLP-focused methods and machine learning tools like SVMs and Nearest Neighbor Searches.

EDUCATION

University of Waterloo Professional Development — Waterloo, ON

Data Science Certificate — *2019-2021*

- **Notable course content:** Big data management tools & systems, Machine Learning, Statistics for Data Science.

McMaster University — Hamilton, ON

MSc. Mathematics — *September 2017 – August 2018*

- **Cumulative GPA:** 3.9 / 4.0
- **Awards:** Milos Novotny Fellowship Scholarship
- **Major Research Project:** "Investigation of the Keen Model with Exogeneous Shocks" with supervisor Dr. Matheus Grasselli.

University of Ottawa — Ottawa, ON

Honours BSc. with specialization in Mathematics — *September 2012 – December 2016*

- **Graduated Magna Cum Laude:** GPA 3.84 / 4.0

TECH STACK

Languages: R, Python, SQL, NoSQL, HTML+CSS

Other: Tensorflow, Scikit-Learn, PyTorch, MongoDB, Cassandra, Apache Spark (PySpark), Plotly, Dash, Power BI, Tableau.

ADDITIONAL

Interests: Creative Writing, Literary Fiction, American football, Running, Yoga, Sports Betting, Golf.