MICHAEL ANG

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PROFILE

Trained in Quantitative Research, I have also worked in trading and trade execution across multiple products and trading strategies. Experienced in finding new ideas/alpha, Python development and quantitative mathematics.

EMPLOYMENT HISTORY

Quantitative Trader, GSR Markets
Sep 2022 — Present
Singapore

- Managed trading engines during APAC hours: maintained quoting KPIs while monitoring book risk and engine performance
- Developed techniques for improving engine performance and reducing slippage: calibration of EMA constants, timeout delays, signals for widening quotes.
- Built and maintained tools in Python library for data analysis and Slack alerts for monitoring engines

Options Trader, Maverick Derivatives
Aug 2021 — May 2022
Amsterdam

- Traded US options volatility dispersion for technology sector (QQQ, IGV) and gold miners (GDX). Semi-systematic execution similar to Optiver/Maven/Mako
- Responsible for rebalancing positions, analyzing risk and margin requirements, optimizing trade execution and finding new trading opportunities
- Built visualization tools, trade analysis scripts, webscrapers, and automated operational procedures via Python scripts (Asyncio, Dash, Redis servers, SQL, Websockets, Matplotlib)

Quantitative Researcher, Bloomberg L.P.
Jan 2019 — Jun 2021
New York, NY

- Developed trading strategy pipeline from Bloomberg news sentiment data using ICA methods
- Created algorithms for identifying and classifying errors in analyst earnings reports; used a mix of rules-based and systematic heuristics in an environment with few ground-truth samples
- Tested SABR model approximations used in pricing interest rate swaptions
- Wrote data tools in Python: multi-dimensional PDE solvers, Cython functions, data query packages, option volatility surface GUIs, interactive graphs via bqplot

Research Intern, AQR Capital Management
Jun 2018 — Aug 2018
Greenwich, CT

- Improved existing algorithms for converting raw signal data into factors: removed or modified the portfolio scaling, regression and combination steps; compared relevant metrics after back-testing
- Constructed factor from 2IQ insider trading data set: implemented ideas from academic paper; replicated results; created factor eventually added to AQR execution factor database

EDUCATION

New York University (CIMS)
Sep 2017 — Jan 2019

MS in Mathematics in Finance

Awarded Spring 2018 Director's List | GPA: 3.88

University of Cambridge
Oct 2014 — Jun 2017

BA in Mathematics

Awarded 2017 Georges Lemaitre Prize | First Class Honors

PROJECTS/OTHERS

Publications

Exploration vs Exploitation in Stationary Multi-Armed Bandit Problems (SSRN Jul 2021)

Functional Attribution (SSRN Oct 2019)

Conditional Hypothesis Testing (SSRN Jun 2019)

Network Traffic Classification via Neural Networks (University of Cambridge Sep 2017)

Software

Regular professional usage: Python, SQL

Prior experience: C++, Java, MATLAB, Bloomberg Terminal, LaTeX

Skills

Crypto spot market-making, execution alpha, US equity options volatility dispersion trading, semi-systematic trade execution, working with alternative data, developing and back-testing strategies, theoretical modeling research, mid-frequency factor portfolio strategies

Developing Python tools for data visualization, trade monitoring, Slack alerts, asynchronous connections to databases locally and S3, webscraping, writing and storing big datasets, creating trading UIs, scheduling automated processes.

Mathematical background in Data science for financial data, Time-series analysis, Numerical methods, Statistical modelling, Linear and nonlinear programming, Probability theory, Factor investing, Portfolio optimization

Hobbies/Interests

Scuba Diving, Piano, Backpacking, Oil Painting, Ultrarunning, Motorbiking, Languages, Cooking