Yanliang Tao

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Skills and Credentials

Programming: Python, R, C++, Julia, SAS, LaTeX, Solidity, Bloomberg (BMC)

Packages: NumPy, Pandas, SciPy, scikit-learn, Matplotlib, Plotly; Caret, dplyr, ggplot2

Education

Boston University, Questrom School of Business — Boston, MA
M.S. Mathematical Finance & Financial Technology [GPA 3.59/4.0] — Expected Jan. 2022

- Coursework: Financial Derivatives, Statistics, Computational Methods for Finance (R, Python, C++), Machine Learning, Stochastic Methods of Asset Pricing, Portfolio Theory, Fixed Income, Credit Risk, FinTech Programming (blockchain)

University of Illinois at Urbana-Champaign, College of Liberal Arts & Sciences — Champaign, IL
B.S. Applied Mathematics & B.S. Statistics [GPA 3.58/4.0] — May 2020

- Coursework: Algebra, Calculus, Probability, Regression Design, Statistical Learning, Data Structures
- Award: Illini Datathon Contest 2020: GIS marketing challenge, Runner-up Prize (Rank 2/106 Groups)

Experience

Wenbo Investment Management — Shanghai
Quantitative Trader (Intern until Sept. 2021 – continuing part time) — May 2021 – Present

- Developed intraday high frequency trading algorithms (C++) on cryptos and China's convertible bonds by analyzing tick (orderbook) and transaction data and achieved return of 28.8% within two-month real trading on cryptos (excl. leverage)
- Trained predictive model on tick level price movement (LightGBM) and achieved 80%+ accuracy on top one thousandth true values under customized evaluation metric, to aid signal generation and ordering algorithm
- Currently run and monitor a strategy on a ¥ 2M convertible bond portfolio, improved managing efficiency by realizing function like real time order size changing, trading kill/liquidation switch for individual bond etc.

De-Cheng Family Fund — Shanghai
Quantitative Research Intern — Mar. 2021 – May 2021

- Rewrote back-testing program to fit with cryptos data (Binance) and boosted back-testing evaluation productivity by introducing visualization of orders and trades on interactive candlestick plots (Python)
- Constructed mid-low frequency (hour level) crypto trading strategy by engineering momentum indicators, with back-testing annual Sharpe 2.92, annual return 113%, max drawdown 21% in a three-year period
- Implemented real trading program (apscheduler) via exchange's api, launched strategy and optimized params on a rolling basis, and improved back-testing system accuracy by calibrating with real trades

Project

Mean Reversion Pairs Arbitrage on U.S. Equity Market — Boston, MA
Boston University — Sept. 2020 – Dec. 2020

- Partnered with team to find co-integrated equity-ETF pairs and constructed mean reversion signals by adopting OU process on regression residuals in a rolling basis
- Optimized portfolio and maximized investment efficiency by establishing beta neutral pairs and allocating capital weights based on pairs' inverse volatility, and back-tested with self-implemented back-test algorithm

Miscellaneous

Languages: Mandarin, English **Community:** Digital editing workshop leader (Champaign Photography Club)

Interests: Travel, Trekking, Landscape Photography (Getty Image Contributor), Soccer, Swimming