Yuqi (Michael) He

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY
Master of Engineering in Financial Engineering   **Expected December 2025**

Columbia University, New York, NY
Master of Arts in Statistics, **GPA: 3.63**   **May 2024**

The Pennsylvania State University, University Park, PA
Bachelor of Science in Data Sciences, Statistics, and Mathematics, **GPA: 3.76**   **May 2023**

Selected Coursework: Bayesian Stat, Time Series, Game Theory, Big Data, Machine Learning, Stochastic Processes, Optimization

LICENSES/SKILLS

Licenses: SIE issued on July 29th, 2024 | Skills: Python, R, SQL, Mathematica, Capital IQ, Excel, Statistical modeling

EXPERIENCE

Quantitative Analyst Intern*, Guangdong Kangqi Asset Management Co., Ltd., Guangdong, China.*   **Dec. 2024 to Jan. 2025**
- Utilized the JoinQuant platform and API for time series stock data, and constructed a Market Neutral strategy that aims to maintain a low Beta and a high Alpha by trading ETF options as a hedge of selected stocks.
- Calculated metrics such as VaR, momentum, volatility, etc. in backtest strategy

Quantitative Researcher*, Intersection Capital,* San Diego, CA (Hybrid)   **Jan. to Sep. 2024**
- Conducted weekly data analysis projects on various finance-related topics, including a brief introduction of using a trend-following strategy to make a profit dealing brent crude oil futures and a Market Making strategy aiming for Delta-neutrality.
- Set up and maintained SPV for capitalization; Built cap model, peer comparisons, precedent transactions, and DCF models through Capital IQ for an ongoing project that is on track to IPO in Q1 2026; gave weekly capital market updates for investors; and helped to set up and maintain SVPs for partners.

Summer Quantitative Associate*, Morgan Stanley,* New York, NY (Hybrid)   **June to Sep. 2023**
- Developed a momentum trading strategy using multi-factor model; constructed multiple momentum factors (MACD, RS, etc.) using daily stock return, designed trading signals, and performed backtest in Python
- Implemented backtesting using JoinQuant platform; performed Monte Carlo simulation for inferences of potential outcomes of different positions and timing; and calculated the Sharpe ratio, max drawdown, CVaR, etc.

PROJECTS

Explainable and Robust Graph Neural Network for Spatio-Temporal Prediction   **Jan. to May 2024**
Columbia University, New York, NY
- Benchmarked SHAP in various regression and classification methods on multidimensional spatio-temporal data; explained variable compositions in GNN models using SHAP on different data
- Identified the range of significance of SHAP outputs and key indicators of human migration during significant events

Understanding and finding arbitrage in NBA game spreads, *Yale University*, New Haven, CT   **July to Aug. 2022**
- Predicted point differentials of NBA games using past game results and stats; found asymmetric effect on "Fatigue & Star Player" and developed a betting strategy that systematically outperforms the baseline method
- Scrapped the sportsbook site goldsheet.com for all results and spread information using R and Regex; cleaned scrapped data, retaining only the basic game information, point spreads, and box scores
- Constructed a design matrix to predict game results between 2013 and 2018; calculated and compared prediction accuracy (RMSE) and the win/loss ratio in all scenarios
- He, Yuqi, et al. "Predicting Score Differences in NBA Regular Season Basketball Games." Proceedings of the 2023 5th Asia Pacific Information Technology Conference: https://doi.org/10.1145/3588155.3588169

ACTIVITIES/INTERESTS

Lifting, Swimming, Soccer