YIQIAO (MICHAEL) SUN
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EDUCATION

MIT Sloan School of Management **Cambridge, MA**
Master of Finance, Feb. 2026 2024 – 2026
- GRE Quantitative: 170/170 (96th Percentile); GRE Verbal: 166/170 (97th Percentile)
- Concentration in Financial Engineering
- Anticipated Coursework: Advanced Data Analytics and Machine Learning in Finance, Financial Data Science and Computing, Proseminar in Capital Markets/Investment Management, Finance Lab
- Clubs: Quantitative Finance Club, Investment Management Club

New York University **New York, NY**
Bachelor of Arts in Computer Science and Math, Minor in Business Studies 2019 – 2023
- Cumulative GPA: 3.81/4.00; Honors: Cum Laude, Presidential Honor Scholar Program
- Relevant Coursework: Regression/Forecasting model, Data Science, Big Data Processing, Machine Learning, Forecast Time Series Data, Computing in Finance, Active Portfolio Management, Algorithmic Trading and Quantitative Strategies

EXPERIENCE

High-Flyer Quant Investment Management **Shanghai, China**
Quantitative Intern Spring 2024
- Examined the causes of quant crash in Feb. 2024 through market data analysis and delta hedging simulations of auto callable derivatives and proposed incorporating risk metrics with exogenous liquidity and market bubble states using lppls model
- Improved the DMA strategy by developing style classification models (AdaBoost) and volatility-weighted portfolio through predictions with neural network models (RNN/Transformer-based), achieving an annualized alpha of 20%
- Researched the virtue of complexity through random fourier features and proposed an optimal complexity search process, combining with soft transfer learning on global dataset, to enhance model's return prediction SR by 50%

Morgan Stanley Securities **Shanghai, China**
Fixed Income Intern Fall 2023
- Researched and implemented a timing strategy of treasury futures using emotion indicators based on technical indicators and dynamic factor model based on lead-lag analysis of macro factors, achieving a monthly winning ratio of 65%
- Analyzed the price discovery effect of treasury future tick data on treasury bonds through Granger causality test and computing information share with VECM, and developed an arbitrage strategy with annualized excess return of 30%
- Conducted credit analysis using classification models on cooperate bonds by rating relevant factors from LAPSA model
- Evaluated macro data such as credit spreads and forward rates weekly to advice portfolio positions to the trading group

Shanghai Minghong Investment Management **Shanghai, China**
Quantitative Researcher Intern Summer 2023
- Experimented and proposed different methods of feature processing to the research group, such as using additive regression, double selection, and training models based on industries or tick times, improving the model prediction by 25%
- Tested and tuned the parameters of different machine learning models (regularized linear models, tree models, and recurrent neural network models) to predict returns, attaining a reflective correlation of 0.09 for trading signals

Global AI **New York, NY**
Data Scientist Intern Summer 2022
- Performed dimensionality reduction techniques and time-series forecasting on SDG-specific sentiment dataset and selected LSTM among models (SARIMAX, Random Forest, SVM, LSTM) to maximize prediction accuracy
- Designed and implemented an investment strategy with machine learning models (GMM, etc.) to predict the market regimes and to set the corresponding risk levels for portfolios, achieving an annualized return of 48% and a Sharpe Ratio of 2.37

RESEARCH EXPERIENCE

New York University **New York, NY**
Algorithmic Trading Project on Market Impact Model Spring 2023
- Cleaned TAQ high-frequency trading data using Bollinger bands, computed data statistics, and analyzed autocorrelation of returns using Ljung-Box test and ADF test to decide the bucket length of returns and avoid bid-ask bounces
- Built a market impact model by fitting a nonlinear regression deploying gradient descent, obtained significant coefficients using robust standard errors, and analyzed statistics of residuals, such as heteroskedasticity using the White test
- Used different estimators to compute the covariance matrix, compared the performances with out-of-sample variance of returns based on various predictors and concluded the clipped estimator achieved the lowest volatility 9.15%

New York University **New York, NY**
Independent Research on Behavioral Factor, DURF Grant Award (NYU Research Fund) 2021 – 2023
- Proposed a multi-factor model about investors' overreaction and underreaction to analyze stock returns in the U.S. market and authored the paper "Reaction Behavioral Factor", published by the school journal "The Economics Review"
- Implemented multi-linear regressions to select statistically significant factors and constructed the behavioral factor
- Tested the model performance with optimized weekly portfolios, which includes stocks with top expected cumulative returns, achieving an out-of-sample annualized return of 59.5% and a Sharpe Ratio of 0.8 from 2020-03-31 to 2022-03-30

ADDITIONAL INFORMATION

Technical Skills: Python (pandas, PyTorch), Java, C, PySpark
Leadership: DURF Research Ambassador to hold info sessions and office hours for applicants
Volunteer: Narrator at Shanghai Jewish Refugee Museum from 2018 to 2021
Interests: Basketball, Clarinet, Tennis, Films, Singing