# MENG YUAN

(551) 359-0254 // meng.yuan@nyu.edu // linkedin.com/in/yuanm

## EDUCATION

Expected 12/24 **NEW YORK UNIVERSITY** New York, NY
**The Courant Institute of Mathematical Sciences**
**M.S. in Mathematics in Finance**
- ***Forthcoming Coursework:*** stochastic calculus, algorithmic trading, data-driven modeling, statistical inference, derivatives pricing

09/18 - 06/22 **SICHUAN UNIVERSITY** Chengdu, China
**B.Econ. in Financial Engineering**
- ***Coursework:*** time series analysis, financial stochastic processes, machine learning, OOP in Java, data structure and algorithms in C++, database system, numerical methods, econometrics

## EXPERIENCE

09/21 - 01/22 **SHANGHAI KAFANG INFORMATION TECHNOLOGY**
**Quantitative Research Intern** Shanghai, China
- Constructed high-frequency CTA signals (e.g., step order imbalance ratio and mid-price basis) using fundamental analysis, technical analysis and deep learning models like CNN and LSTM
- Developed high-frequency CTA market-making strategies based on LGBM, incorporating high-frequency signals with low-frequency signals
- Backtested strategies on 50+ types of commodity futures and obtained annualized return over 30% with max drawdown < 5%, winning ratio of 70% and Sharpe ratio of nearly 3
- Calculated fill rate of algorithmic trading orders and futures' price receiving time lags to optimize strategies

07/21 - 08/21 **SHENYIN & WANGUO FUTURES**
**Quantitative Research Intern** Chengdu, China
- Calculated delay of every second between local and exchange servers with linear regression model
- Predicted probability of stock prices declining from surged limit with technical analysis and machine learning models (e.g., neural networks, decision trees), achieving 80% accuracy
- Constructed timing strategy by predicting half-month stock returns based on decision trees, with annualized alpha return reaching 20% and max drawdown of 10% in bear markets

## PROJECTS

10/21 - 02/23 **SICHUAN UNIVERSITY** Chengdu, China
**Enhanced Index Tracking Based on Kernel Search**
- Modeled enhanced index tracking as mixed integer linear programming (MILP) problem and solved it by applying heuristic kernel search, using YALMIP tool
- Improved kernel search algorithm by dividing time span into multiple periods, reducing out-of-sample RMSE from 1.5 to 0.3, according to backtests on China's CSI 300 index

10/20 - 09/21 **SICHUAN UNIVERSITY** Chengdu, China
**Portfolio Management Based on Random Matrix Theory**
- Filtered covariance matrix of portfolio returns with random matrix theory
- Calculated minimal risk portfolio and efficient frontier in Markowitz's theory using filtered covariance matrix, reducing out-sample risk by 2/3 on China's CSI 300 index

## COMPUTATIONAL SKILLS / OTHER

***Programming Languages:*** Python, Java, C/C++, MATLAB, SQL
***Languages:*** English (fluent), Mandarin (native)