

Jingxing Wang

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EDUCATION

North Carolina State University, Master of Financial Mathematics

Raleigh, NC

GPA: 4.0/4.0

Dec 2025

Honors: NCSU Financial Mathematics Fellowship

Shanghai Jiao Tong University, Bachelor of Science, Finance, Data Science

Shanghai, China

GPA: 3.8/4.0

Jun 2024

Honors: Outstanding Undergraduate Scholarship

Relevant Coursework: Calculus I & II, Linear Algebra, Probability & Statistics, Programming, Econometrics, Machine Learning, Game Theory, Stochastic Simulation, Stochastic Processes, Algorithm Analysis & Design, Forecasting Methods, ODE, Options & Derivatives Pricing

SKILLS

Programming: Python, C++(Baruch Certificate), Rust, R, Stata, MATLAB, MySQL, SQL, SAS

Packages: Pandas, Numpy, Polars, SciPy, Scikit-Learn, Pytorch, TensorFlow, Sympy, Multiprocessing, Statsmodel

Technologies: Microsoft Office Suite: Excel, Word, PowerPoint, SPSS, Latex, Tableau, Wind, Bloomberg

WORK EXPERIENCE

Beijing Dongshuguan Technology Co.(Crypto Prop)

Shanghai, China

Quantitative Researcher Intern

Mar 2024-Jun 2024

- Identified dozens of low-correlation cross-section crypto factors with p-values lower than 0.05
- Improved CUSUM algorithm, applied to stationary detection of neutral factor returns, estimated stable interval
- Selected factors based on t-values in stable intervals, combined this timing strategy with rolling low-correlation bagging and Fama-MacBeth, achieving sharp ratio of 3.2 in 2022-2024 backtesting
- Utilized Python Packages including Numpy, Polars, multiprocessing to perform vectorized parallel computation

China Industrial Securities Co.

Shanghai, China

Quantitative Researcher Intern

Aug 2022-Dec 2022

- Self-Studied Deep Hedging method, transformed into Python code, improved model by feature engineering
- Applied to snowball option portfolio hedging, resulting in 50% variance reduction compared to Delta hedging
- Developed heuristic learning rate dynamic adjustment algorithm, and integrated with the Adam algorithm
- Utilized bootstrapping and AR-GARCH with Monte Carlo simulation to generate price paths for training data
- Developed a trading system by creating GUI component for real-time K-line charts
- Utilized Python Packages including Statsmodel, Pytorch and Numpy to train deep hedging model

Tebon Securities Co.

Shanghai, China

Quantitative Researcher Intern

Jan 2022-Feb 2022

- Developed stock selection strategy by integrating financial indicators into the nonlinear Barra model
- Built cross-period stepwise variable selection model to filter and identify cross-period stable indicators
- Utilized Random Forest to predict future residual returns, enhanced the CSI 300 and CSI 500 indices
- Achieved average annual excess return of 13% and average IC of 0.14 through backtesting from 2016 to 2021
- Developed a backtesting platform that supports both simple and capacity backtesting

Changjiang Futures Co.

Shanghai, China

Quantitative Analyst Intern

Aug 2021-Oct 2021

- Extracted technical indicators related to momentum, correlation, volatility and liquidity from min-bar data
- Trained Random Forest, SVM, XGBoost and LSTM in sliding window framework for return prediction
- Developed fusion model by combining trained models for long/short decisions
- Achieved win rates over 52% and Sharpe ratios of 3.3 across four main contracts in 2020-2021 backtesting

RESEARCH EXPERIENCE

Non-stationary Multi-Armed Bandits Algorithm Research

Oct 2021-Apr 2023

- Researched relevant algorithms including DTS, SW-UCB, CUSUM-UCB, GLR-TS
- Developed backtracking framework using dynamic programming to estimate mutation locations in CUSUM
- Integrated Backtracking-CUSUM with Thompson Sampling, demonstrated improved robustness and regret reduction of over 5% compared to other algorithms in both Browning & Switching Environments

Water-Sorting Puzzle Algorithm Design

Apr 2022-Jun 2022

- Created greedy algorithm to minimize marginal units; optimized data structures and simplified sub-problems to reduce problem space tree depth and breadth during backtracking
- Achieved complexity reduction from $N^{(2ND)}$ to $(N\log(N))^{(ND)}$ compared to depth-first search
- Transformed designed algorithm into Python code; further extended it into dynamic and interactive GUI

COMPETITIONS & AWARDS

Meritorious Winner in **Mathematical Contest in Modeling**

Apr 2022

Second Prize in **Chinese Undergraduate Mathematical Contest in Modeling**

Dec 2021

First Prize in **Chinese Physics Olympiad**

Oct 2018