

Jasper(Taoyi) Chen

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EDUCATION

University of Michigan - Ann Arbor

Master of Science in Quantitative Finance and Risk Management

Aug 2024 - Dec 2025

Ann Arbor, US

Wuhan University

Bachelor of Science in Mathematics & Bachelor of Arts in Finance

Sep 2020 - Jun 2024

Wuhan, China

SKILLS & COURSEWORK

Mathematics: Linear Algebra, Calculus, Dynamic Optimization, Numerical Analysis, Stochastic Analysis

Statistics: Statistics, Probability, Stochastic Process, Time Series Analysis

Programming: Data Structure, Algorithm, Machine Learning, Python (pandas, numpy, scikit-learn), R, MatLab

Finance: Microeconomics, Econometrics, Behavioral Economics, Investments, Corporate Finance

PROFESSIONAL EXPERIENCES

Jiawo Asset Management (\$5B AUM)

Beijing, China

Quantitative Researcher Intern(Python, DolphinDB), Research Department

Dec 2023 - May 2024

- Constructed 30+ factors using price-volume data and order book data; factors showed good performance with 0.04+ Information Coefficient(IC), 2+ Sharpe ratio, and low correlation with existing factors (less than 0.6)
- Conducted research on the relationship between mutual information(MI) and return, distribution of different category's factors' MI, stability of MI, and etc, which showed MI is a valid index on testing factors
- Synthesis of non-linear factors using machine learning methods, resulting in a strategy constructed using the XGBoost method with a Sharpe ratio of 5.71 and an annualized return of 18.06% on a long position

RiceQuant Technology (Top quant platform in China)

Shenzhen, China

Quantitative Researcher Intern(Python), Alpha Research Team

Jul 2023 - Oct 2023

- Constructed 30+ price-volume factors with good prediction performance (achieving 0.7+ ICIR, 0.05+ IC, and 70%+ annualized long/short returns for each factor) in less than 30 days
- Developed a strategy integrating the factors mentioned above through solving an optimization problem (max IC, max ICIR) and using compression estimates to obtain a more accurate covariance matrix.
- The strategy reached a 29.61% annualized return, excess return of 30.1%, and 1.41 Sharpe ratio

Huatai Securities (top securities and sell-side research institutes)

Remote

Quantitative Researcher Intern(Python, Wind), Financial Engineering Group

Jul 2022 - Nov 2022

- Built an abstract return ETF strategy (Sharpe ratio of 1.7, 28% annualized return rate) by determining the core positions based on Business Cycle Indicators and adjusting position weights with Crowding Indicators and Fund Flow Indicators
- Constructed a set of position-based metrics to portray fund managers' abilities, and the FOF strategy constructed with these metrics achieved 13% annualized excess returns.

RESEARCH EXPERIENCES & COMPETITION

JPMorgan Chase

Forage

Job Simulation—Quantitative Research

Jul 2024 - Aug 2024

- Using ARIMA to predict natural gas price in the following year with parameters decided by ACF and PACF plot.
- Writing a function that takes important factors for contract pricing and gives back natural gas contract price.
- Using random forest to predict the probability of default given borrower's income, total loans and some other metrics, which reached 87% accuracy.
- Mapping FICO scores to a discrete variable, which is solved by maximizing the log-likelihood function.

WorldQuant International Quant Championship

Ranked 221/2901

March 2023 - Jun 2023

- Submitted over 40 factors, constructed by price-volume data, fundamental data, and news data, with a Sharpe ratio of around 2, return of 20%, and turnover less than 25%(22 factors with spectacular performance)