Jiayin Lu
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Education

University of Pennsylvania, Penn Engineering
Master of Computer and Information Technology — January 2023 - Present

Columbia University, Industry Engineering and Operations Research
Master of Science in Operations Research — December 2022
Relevant Coursework: Optimization Models and Methods, Stochastic Models, Simulation, Intro to Financial Engineering, Asset Allocation, Corporate Finance

University of Connecticut, College of Liberal Art and Sciences, Dual degree
Bachelor of Art in Applied Mathematics Science, Bachelor of Science in Economics — May 2021
Relevant Coursework: Economic Forecasting, Econometrics, Game theory, Risk management and insurance

Professional Experiences

WorldQuant Asset Management, Brain research consultant(Quantitative research) — Remote/New York, NY
September 2023 - Present

- Apply market neutralization technique (long/short equity) to hedge away general market risk
- Come up with good alpha signal trading strategies by analyze a vast amount of data processed by data science team, apply statistical analysis on data
- Use API to test and combine different implementation of ideas, optimize parameters like decay, neutralization, or lookback periods
- Excavate high quality alpha factors with sharpe ratio above 2, low turnover, and low drawdown from price reversion, price momentum, fundamental, price volume, option, sentiment aspects

Bank of China New York Branch, Business Analyst intern — New York, NY
March 2023 - August 2023

- Involve in risk data aggregation and risk reporting platform (RDA) software development program to improve risk management and business decision-making
- Work closely with vendors to interpret results of the report platform and verify if they align with business reports, design the workflow and operational procedure
- Utilize SQL server integration service(SSIS) to extract data from legacy systems, cleanse the data to improve data quality and establish consistency, and load data into a target database(ETL)
- Perform system integration tests(sit) with team and vendors

Project Experiences

Simulation Study: Test Performance of Multiple Asset Allocation Strategies — March 2022 - May 2022

- Generate synthetic datasets to empirically test the performance of multiple asset allocation strategies in terms of several metrics in the financial market
- Implement 12 asset allocation methods, divided into 6 big aspects (benchmark, classical approach that ignores estimation error, Bayesian approach to estimation error, Moment restrictions, Portfolio constraints, Robust portfolios)
- Apply tuning-parameter ablation study and intertemporal correlation study to test factors to obtain return

Skills

Soft skills: Leadership, Team collaboration, Self-motivation, Critical thinking
Technical skills: Proficient in Python, and Excel