Weiyi (Jack) Liu

Email: wl2984@columbia.edu | Mobile: (+1) 646 232 3033 LinkedIn: www.linkedin.com/in/weiyi-jack-liu

Education

Columbia University : Columbia Engineering New York, NY, US
Master of Financial Engineering *Aug 2024 – Dec 2025*
GPA: 4.08, Core Courses: Stochastic Models, Optimization, Quantiative Risk Management

Fudan University Shanghai, China
Bachelor of Science in Data Science *Sep 2020 – Jun 2024*
GPA: 3.73, Ranking: 4/48
Core Courses: Probabilities, Stochastic Process, Optimization, Database, Statistics

University of California, San Diego San Diego, CA, US
Exchange Program, GPA: 4.0 *Sep 2022 – Dec 2022*
Core Courses: Deep Learning, Algorithm Analysis, Probabilistic Reasoning of AI

Projects

Independent Systematic Quantitative Trading *Python, Pytorch, C++, SQL, Git*
- Developed a complete trading system leveraging the open-source trading framework VNPY, focusing on high-frequency trading in futures market
- Designed and implemented factor and model systems to optimize trading strategies, resulting in an annual Sharpe ratio exceeding 2.0 within a 4-month period in a real-market, live-trading environment

Intent Classification with Contrastive Learning *Python, PyTorch, Git*
- A BERT-based model obtaining 86.91% accuracy on *amazon massive intent* database
- Refined class embeddings using SupContrast model, enhanced clustering and 4.2% improvement in accuracy

Popular Answer Prediction in QA Forum *Python, PyTorch*
- A multi-approach project on top answer prediction applied in Recommender System
- Constructed a database from Quora website, achieving a model accuracy of 63.2% employing regression and BERT

Experience

Quantitative Researcher Summer Intern Singapore, Singapore
Squarepoint Capital *June 2025 – August 2025*

Quantitative Researcher Intern Shanghai, China
QTG Capital Management *Oct 2023 – May 2024*
- Built models to synthesize 600+ alpha factors for predictions, elevating team's accuracy in forecasting future returns
- Assisted in managing a daily rebalancing index-enhanced fund, demonstrating a 10% performance increase over the previously deployed models at a scale of 140 million USD, primarily using xgboost and attention-based RNN

Quantitative Researcher Summer Intern Shanghai, China
China Fortune Securities *Jun 2023 – Aug 2023*
- Researched CTA strategies across various frequencies, applying deep learning models to replicate results from academic papers and reports, including change point detection and LSTM models
- Led implementation of a deep learning workflow, improving efficiency and collaboration for a team of 10
- Integrated triple barrier method with direct Sharpe ratio optimization to conduct exploratory analysis

Awards

Interdisciplinary Contest In Modeling(ICM) website *Meritorious Winner (Top 9%)*
- Analyzed network graphs and relationships between 17 Sustainable Development Goals by multivariate ARIMA model
- Optimized prioritization for sustainable development objectives with convex optimization

Kaggle Competition: ICR - Identifying Age-Related Conditions website *Bronze Medal (Top 6%)*
- Developed a stacked model using multiple GBDT algorithms and TabPFN to address a complex categorization problem
- Innovatively employed MC simulations for features available only during training to enhance testing performance

Skills and Interests

Languages : Python, R, C/C++, Matlab, HTML, CSS, Git, LaTeX

Tools : Numpy, Pandas, Pytorch, Tensorflow, MySQL