Jiayuan (Jack) Le

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EDUCATION

The University of Chicago   **Chicago, IL**
Master of Science in Financial Mathematics   **Expected December 2024**
- Courses: Credit Market, Financial Statistics, Big Data, Machine Learning in Finance, Foreign Exchange, Portfolio Theory & Risk Management, Option Pricing, Stochastic Calculus

New York University   **New York, NY**
Bachelor of Arts in Mathematics and Computer Science   **May 2023**
- Machine Learning, Artificial Intelligence, Natural Language Processing, Analysis, Algebra, Partial Differential Equations, Theory of Probability, Data Structure

SKILLS

Programming: C++, Python, R, SQL, Java, Unix/Linux
Tools: Pandas, Numpy, Scikit-learn, PyTorch, Power BI, MongoDB, PostgreSQL, MATLAB, MS Office

EXPERIENCE

Lumena Energy   **Chicago, IL**
Quantitative Developer Intern   **June 2024 – August 2024**
- Designed machine learning models to predict carbon credit prices with a predictive accuracy improvement of 25%, enhancing feature identification for future remote sensor deployments and optimizing deployment strategy.
- Extracted and processed over 10,000 records from registry offset databases using Python and SQL; developed an interactive dashboard that decreased data analysis time by 40%, providing real-time insights for decision-making.
- Conducted market research on carbon credit pricing instruments, identifying new investment opportunities that have the potential to increase market penetration by 10% and projected to add $1.5 million in annual revenue.

Neuberger Berman   **Chicago, IL**
Quantitative Researcher Intern – University of Chicago Project Lab   **Mar 2024 – May 2024**
- Developed a Retrieval Augmented Generation (RAG) pipeline that reduced the time analysts spent on retrieving and summarizing information by 60%, saving approximately 45 minutes per report and enhancing overall workflow efficiency by 30%, resulting in a projected annual time savings of over 500 hours across the team.
- Implemented a search customization and error-handling mechanism within the RAG pipeline, enhancing retrieval precision by 40% through the use of extensive metadata and reranking systems. This innovation led to a 20% reduction in search errors and improved the accuracy of context-based information retrieval.

Tailai Fund   **Beijing, China**
Quantitative Researcher Intern   **June 2023 – August 2023**
- Engineered advanced alpha factors using Python on daily and minute-level price-volume data, achieving a Sharpe Ratio of 6.5 and an Information Coefficient (IC) of 0.06 consistently over five years, outperforming benchmark strategies in the volatile Chinese Equity Market by 40%.
- Built a pipeline to assess and optimize the correlation of 50+ existing alpha factors, utilizing lasso linear regression to consolidate them into a 'mega factor,' which improved Sharpe Ratio to 7.5, enhancing portfolio diversification.

The Seelig Group   **New York, NY**
Private Equity Summer Analyst   **June 2022 – August 2022**
- Identified opportunity gaps in the NFT Industry that the firm can leverage through detailed analysis and provided extensive research of sectors and key players, as well as examples of real-world application.
- Built waterfall cash flow models and Multiple on Invested Capital tables through close collaboration with management team; expanded model into weekly recoupment tables to improve investor presentation quality.
- Created a pitch deck on streaming finance using information gathered from Amazon Turk surveys; built data fetching program independently in Python that utilized IMDB API to iterate databases containing 8k entries.

ADDITIONAL INFORMATION

Languages: Mandarin (Native)
Interests: Gym, cooking, poker and other card games, violin