Shichen Qi

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY
Master of Engineering in Financial Engineering — Expected December 2022

University of Illinois at Urbana-Champaign, Urbana, IL
Bachelor of Science in Mathematics & Statistics, **GPA: 3.88** — May 2021

Selected Coursework: Operations Research Tools for Financial Engineering, Fixed Income Securities & Interest Rate Options, Time Series, Linear Algebra, Probability, Differential Equations

Technical skill: Python, R (Intermediate); SQL (Basic)

EXPERIENCE

Quantitative Strategy Researcher, *XinXiang Asset Management,* Shanghai, China — May to July 2021

- Executed the high frequency trading strategy with a principal of 8,000 USD in the stock market based on volume & price changes. Earned a total rate of return of 8% in 2 months.
- Quantified the T+0 transaction strategy using **Python** based on historical order information. Analyzed the opening/closing time based on the sale/buy amounts and prices in each tick.
- Created options to leverage ETF returns. Quantified the option arbitrage strategy with **Python** by calculating the basis to estimate the upper and lower bounds that guarantee the cost and maximize the profit. Gained a risk-free rate of 7-8%.

Financial Analyst & Data Science Intern, *The Clyde Group,* New York, NY — May to July 2020

- Collected, cleaned and standardized bonus information of 100+ types of credit cards in **Excel**.
- Developed a calculator function in **Python** that recommends cards with the best benefits based on the welcome offers and featured benefits for users according to their purchase history.
- Authored 3 credit card review articles based on customer need and search frequency to increase company exposure.

Summer Analyst, *Dept. of Retail Banking at Bank of Shanghai,* Shanghai, China — May to July 2019

- Recalibrated the housing provident differential pricing model for a micro-credit product client category. Improved the model benchmark rate by 10%.
- Analyzed customer distributions with **SQL**. Built a customer database for product promotion and provided recommendations to improve the product.

PROJECTS

Tesla Stock Forecasting feature analysis, *ORIE 5741 Big Messy Data*, Ithaca, NY — Aug. 2021 to Dec. 2021

- Extracted Elon Musk's Twitter content to conduct sentimental analysis and compared with the price trend one day later.
- Conducted logistic regression, neural network and random forest to predict Tesla's price trend and got an accuracy of 65.5%.

Study on Credit Card Fraud Detection Data, *STAT 432 Basics of Statistical Learning*, Urbana, IL — Dec. 2020 to May 2021

- Observed the imbalanced proportion in the dataset and used AUC as the proper evaluation metric.
- Chose XGBoost model, SMOTE as the sampling method based on the AUC result and tuned the model with the best hyperparameters obtained by searching through their respective bounds.

Study on Carbon Dioxide Emission, *STAT 429 Time Series,* Urbana, IL — Dec. 2020 to May 2021

- Constructed two regression models with **R** to predict the atmosphere Carbon Dioxide, and conducted the model diagnosis test such as mean squared errors, AIC, BIC and the Ljung-box plot.
- Developed an ARIMA model based on ACF and PACF test to obtain the data seasonality, and forecasted a 5 month of trend of Carbon Dioxide emission amount.

ACTIVITIES & INTERESTS

- Hobby: hiking, horseback riding, piano, poker games, tennis
- Leadership/mentorship: Founder of a community library, language mentor in Chinese Language and Development Society, TA of STAT 207 Data Science Exploration