James Zhang

Jameszhangfighton0701@gmail.com Ithaca, NY 14850 cell: 917-856-0802

EDUCATION

Cornell University, College of Engineering **Ithaca, NY**
M.Eng. in Financial Engineering with Data Science Certificate Expected Dec. 2025

University of Southern California **Los Angeles, CA**
B.S. in Applied and Computational Mathematics, Minor in Computer Science May 2024

- **GPA:** 3.8; **Honors:** Dean's List
- Coursework: Machine Learning, Dynamic Modeling, Computational Methods for Optimization, AI Theory

SKILLS

Technical: Python(NumPy, Pandas, scikit-learn, Keras), C/C++, R, Machine Learning, MATLAB, SQL, Java

EXPERIENCE

Northern Purchase **Los Angeles, CA**
Private Equity Fall Quantitative Analyst Sep. – Dec. 2023

- Evaluated potential acquisition targets, focusing on small- and medium-sized businesses with an annual cash flow exceeding $2M, and conducted industry research to assess growth prospects and competitive landscape
- Applied Python and Excel to develop financial models, incorporating Monte Carlo simulations to forecast revenue volatility and risk scenarios. Leveraged VBA for automating data extraction and preprocessing from financial statements

Apex Capital Growth Advisors **Los Angeles, CA**
Private Equity Summer Quantitative Analyst July – Sep. 2023

- Screened 100+ potential target companies in the middle market B2B SaaS industry; assessed each company against investment criteria including size, business model, management potential, and recurring revenues
- Applied Principal Component Analysis using Python to identify key cash flow-related factors like free cash flow. Developed a quantitative model to rank companies based on their adjusted cash flow performance

CITIC Securities **Beijing, China**
Quantitative Research Summer Analyst May – July 2023

- Automated data collection from Wind database to perform premium analysis between China A-share and Hong Kong H-share of cross-listed companies; developed a regression equity statistical arbitrage strategy using Python based on stock industries; and detected trading signals for the strategy
- Researched a multi-factor stock selection strategy and its performance in the A-share market; applied regression analysis and machine learning algorithms in Python to identify effective fundamental factors for returns, achieving a sustained increase in returns from **12%** to **13.44%**

Taikang Insurance Group **Beijing, China**
Risk Management Analyst Jan. – Mar. 2023

- Created an automatic data retrieval process using Excel VBA and SQL; evaluated, quantified, and calculated 10+ external risk exposure indexes of price volatility and other risk factors, increasing time efficiency by **20%**

PROJECTS

SPX Options Trading Strategy with Principal Components Analysis **Ithaca, NY**
Cornell Trading Competition Aug. 2024 – Present

- Analyzed SPX options using Greeks and Principal Component Analysis to identify key risk drivers affecting price movements. Developed trading signals and implemented strategies like straddles & collars to hedge risks

Topological Data Analysis about Stock Price Movement Prediction **Los Angeles, CA**
USC Research Assistant Mar. 2023 – Mar. 2024

- Compared the stock price movement prediction performance using machine learning methods with persistent homology and applying them on stock returns

ACTIVITIES & INTERESTS

President of USC Board Game Club, Poker, Strategic Games, Puzzle, Soccer, Cello, Film Noir, Traveling