113 Valentine Place, Ithaca, NY 14850

EDUCATION

hx252@cornell.edu

Cornell University, College of Engineering, Ithaca, NY

Master of Engineering in Financial Engineering, GPA: 3.7

Aug. 2022 to Dec. 2023

cell: +1 (607) 262-9004

University of Nottingham, Nottingham, UK & Ningbo, China

Bachelor of Science with Honours in Statistics, First Class Honors, GPA: 3.8

Sep. 2018 to Jun. 2022

Awards: The Dean's Scholarship (2018-2019) & The Head's Scholarship (2019-2020); The Bank of China Scholarship (2019)

Copenhagen Business School, Copenhagen, Denmark

Summer School (Applied Statistical Analysis for Business and Economics)

Jun. to Aug. 2019

Selected Coursework: Optimization, Time Series Analysis, Statistical Inference, Applied Statistical Modeling, Differential Equations and Fourier Analysis, Stochastic Calculus, Mathematical Finance, Monte Carlo Simulation, Machine Learning

SKILLS & CERTIFICATES

Technical: Python, R, SQL, MATLAB, C++, Excel VBA, LaTeX/Markdown, Bloomberg, DataStream, Microsoft Office Certificates: FRM Level 1 (Level 2 Candidate); CFA Level 1 Candidate

EXPERIENCE

Quantitative Research Intern, Trendalyze Inc., New York City, United States Wealth Management Intern, Founder Securities Co., Ltd., Wenzhou, China

May to Aug. 2023 Jul. to Sep. 2021

- Analyzed and optimized client portfolios using quantitative multi-factor optimization model in Python, developed customer resources for sales and management. Maintained the channels and follow-up client relationships.
- Conducted portfolio assessments to ensure investment accuracy, scrutinized equity and fixed income securities, and appraised investment objectives and projects. Contributed to the development of internal analysis reports and compiled a comprehensive 18,000-word analysis for investment consulting clients.

Finance & Accounting Intern, China Pacific Insurance Group Co., Ltd., Hangzhou, China

Aug. to Sep. 2020

- Reviewed relevant original vouchers, prepared bookkeeping vouchers, and completed account processing; participated in regular asset inventories in conjunction with the operations department.
- Assisted the finance manager in data validation, as well as inventory reporting and control, strategic planning, and cost deployment strategy development via statistical methods such as regression analysis, and Monte Carlo simulations.

Research Intern, UNNC-NFTZ Blockchain Laboratory, Centre for Inclusive Finance, Ningbo, China

- Participated in the research project titled "Research on Intellectual Property and Patent Evaluation to Promote Financing for Small and Medium-sized Enterprises". Handled modelling, data collection/analysis, and report writing.
- Automated the database for the main SMEs' financing indicators, established a linear model using R programming and selected the optimal model based on error analysis and data visualization.

PROJECTS

Stability Measure for Minimum Variance Portfolios leveraging Marchenko-Pastur Theory and Eigenvalue Distributions Cornell University

Applied Marchenko-Pastur threshold to empirical data, separating eigenvalues associated with noise from signal. Optimized over the Marchenko-Pastur process variance parameter by tuning its value to minimize the distance between analytic M-P pdf and empirical KDE. Implemented a rolling monitor for portfolio stability in the high-dimension regime.

Advanced Machine Learning Applications in Image and Text Classification, Cornell University Oct. to Dec. 2022

Employed machine learning algorithms such as k-NNs and Perceptron for image and spam classification. Established Kernelized SVMs using PyTorch, tailored for optimization problems on specific datasets. Developed and tested CNNs and multi-layer perceptron models for digit image classification. Implemented CARTs de novo, conducting empirical investigations to ascertain the efficacy of bagging and boosting techniques.

Minimum Edge Compression of General Graphs (Allow Overlapping Nodes), University of Nottingham. Jun. to Sep. 2021

Innovated a compression algorithm that minimized the number of edges without losing information about the original graph. Proved NP-Completeness and designed an algorithm based on formula derivations. Established graph models and developed a Python-based computer simulation to verify effectiveness.

ACTIVITIES & INTERESTS

LEGO building; Diving; Calligraphy; 2020 Oliver Wyman Impact Mainland China Case Competition (Team Leader)