vf254@cornell.edu

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607-280-9776

EDUCATION

Cornell University, College of Engineering, Ithaca, NY

Master of Engineering in Financial Engineering, GPA: 3.97/4.00

Expected December 2022

The Chinese University of Hong Kong (CUHK), Hong Kong, China

Bachelor of Science in Risk Management Science (Analytics Stream), First Honor, **GPA: 3.74/4.00** May 2020 Awards: CUHK Best Essay Award – Silver Award (2017-18, 2018-19), Fintech Best Project Award (2021)

University of Toronto, St. George's Campus, Toronto, Canada

Fall-Term Exchange

Sep. to Dec. 2019

Selected Coursework: Datamining for Fintech, Machine Learning, Optimization in Finance, OR Tools for Financial Engineering, Big Data Technology, Database, Statistical Inference, Time Series

SKILLS

Technical: Python, SQL, R, VBA, C, Java, SAS, MS Office

EXPERIENCE

Investment Solutions Intern, Dimensional Fund Advisors, Austin, TX

Expected June to Aug. 2022

- Collect, organize and analyze data from various internal and external database, and programmatically seek data to automate materials production.
- Identify relevant investment trends and aid in the design and maintenance of competitive analysis.

Quant Intern, Asset Management Department, Shenwan Hongyuan Securities, Shanghai, China July to Aug. 2020

- Implemented 20-factor stock selection models via Python and R, backtested the strategies, and improved five factors including APM, Smart Money, and LIQ, increasing ICIR and reducing the maximum drawdown.
- Completed initial inquiries, offline subscriptions, and payments of over 50 new shares of Shenwan Hedge Fund 2.
- Applied technical analysis, such as trend line and wave theory in EQER system, on A-share stocks in Pharmaceutical, Auto, and Material industries.

Investment Assistant Intern (unpaid), Oianhai Business Department, Huatai Securities, Shenzhen, China Aug. 2019

- Performed investment strategy research, risk preference survey and financial due diligence on 5 private equity companies, and supported the signing process of strategic cooperation agreements.
- Examined the companies listed on the STAR board and conduct fundamental analysis of 8 biomedical firms by reviewing their annual reports; supported the fund manager in the preparation of client investment reports.

Editorial Intern, Mathematics Department, World Scientific Publishing, Singapore

June to July 2019

• Reviewed and revised more than 10 papers and 3 books in the field of Statistics on topics such as non-stationary time series and survival analysis; wrote a regular column called the *Mathematics Newsletter* based on the latest achievements in the news.

PROJECTS

Graph-based Multi-Factor Portfolio Optimization, Cornell University, Ithaca, NY.

Jan. to May 2022

- Proposed a graph-based multi-factor structure of portfolios' covariance matrix prediction with multi-variate GARCH and implemented in Python.
- Constructed Markovitz portfolio optimization based on the covariance constraints obtained from the proposed model.
- Performed empirical study of different time-period over U.S. equities with macro-economics factors, and the model outperforms benchmark models both pre- and post-pandemic.

Credit Risk Analysis with Machine Learning, CUHK, Hong Kong

Jan. to Apr. 2021

- Conducted credit risk analysis using machine learning and deep learning models; formulated predictions for two credit risk datasets using 10 models and studied the models' reliability and recommended algorithms dealing with imbalanced huge datasets.
- Proposed improved algorithms including two-layer stacking and studied the reliability and impact of deeper fine-tuning.

ACTIVITIES/INTERESTS