

Litong Liu

ll936@cornell.edu

113 Valentine Pl, Ithaca, NY 14850

cell: +1 (607)3199625

EDUCATION

Cornell University, College of Engineering, Ithaca, NY
Master of Engineering in Financial Engineering, **GPA: 4.3/4.3**

Expected December 2023

The Chinese University of Hong Kong, Shenzhen, China

Bachelor of Science in Mathematics, **Dean's List (2019-2022)**, **GPA: 3.67/4.0**, **Major GPA: 3.76/4.0**

May 2022

Selected Coursework: Real Analysis, Advanced Linear Algebra, Graph Theory, Optimization (I & II), Ordinary Differential Equations, Partial Differential Equations, Data Structures, Probability Theory, Stochastic Process, Machine Learning

Scholarships & Grants: Academic Performance (AP) scholarship-Class C, Dean's list (2019-2022)

SKILLS

Technical: Python, R, SAS, Stata, MATLAB, Java, LaTeX, Excel

EXPERIENCE

Research Assistant, Cornell, Ithaca, USA (Mentor: *Prof. Shane Henderson*)

Oct.2022 to now

- Responsible for formulating the problem of vaccination distribution policy decision for COVID (or potential other diseases) for specific groups of people and estimate the total number of symptomatic infected individuals in a given period
- Developed algorithm of simulation to optimization the vaccination distribution policy and implemented by Python

Research Assistant, UIUC, USA (Mentor: *Prof. Zhiyu Quan*)

Sep.2022 to now

- Do literature review on Algorithm Bias, Interpretable Machine Learning, and Explainable Artificial Intelligence
- Give weekly presentation on the selected topic and report corresponding results

Research Assistant, *Shenzhen Research Institute of Big Data*, Shenzhen, CN (Mentor: *Prof. Dong Wang*)

Nov. 2020 to now

- Converted image segmenting problem into concave function optimization over a convex set by the characteristic function
- Developed algorithm to conduct image segmentation based on initial knowledge and data of image objects, which can now be used in medical imaging model and target detection

Research Assistant, *CUHK*, Shenzhen, CN (Mentor: *Prof. Shuai Ye*)

March to Dec. 2020

- Used SAS programming and innovated analytical framework to quantitatively analyze the main reasons and the proportion of different factors for the low yield of individual investors in the stock market
- Analyzed the influence of "overconfidence" on investors among the five causes of behavioral deviation; constructed a virtual portfolio to determine the influence of various factors on the loss degree of investors

Group project — Model Research and Analysis of Credit Decisions of Small and Medium-sized Enterprises

Sep. 2020

- Used Python and Matlab quantitatively analyze the credit data of 123 companies and establish a quantitative model of credit risk and corporate credit strategy model
- Establish a credit strategy adjustment model under the influence of emergencies, comprehensively consider the credit risks of various enterprises, and obtain the best credit strategy

PUBLICATIONS

- **Paper:** Zhang, S., Liu, S., Li, B., Liu, L., & Zheng, Q. (2021). A New Corner Detection Method Based on Regularized Covariance Matrix. *Mathematics Practice and Cognition*.
- Liu, L & Wang, D. An information-driven unsupervised image segmentation model with prior information of shape & connected rows (IP)
- Computer Software Copyright Registration Certificate issued by National Copyright Administration of China (July 2020)

LEADERSHIP

Campus Ambassador, *Chinese University of Hong Kong*, Shenzhen, CN
2019

Nov. 2018 to Aug.

- Organized 50 alumnus return visit and campus talk& served as a campus orientation guide
- Participated organization of the meeting of 80 high school principals from different provinces of China (participated in awards ceremony& scheduled interviews& Organized meetings between principals and students)

ACTIVITIES/INTERESTS & CERTIFICATES

Piano; painting; horseback riding; archery