Min Fei

minfei2025@u.northwestern.edu   +1-312-869-0691

EDUCATION

Northwestern University   Evanston, IL, US
M.Sc - Industrial Engineering and Management Science; GPA: 3.74/4   *Sep 2020 - May, 2022*
Courses: *Fundamentals of Computer Programming, Data Structures & Algorithms, Databases, Predictive Analysis, Real Analysis, Applied Math Stats, Mathematical Optimization, Real Analysis, Integer Optimization, Stochastic Simulation, Social Network Analysis*

Georgia Institute of Technology   Atlanta, GA, US
M.Sc - Operations Research; GPA: 3.9/4   *Sep 2018 - Dec 2019*
Courses: *Machine Learning, Computational Statistics, Theoretical Statistics, Experiments Design & Analysis, Simulation, Probability*

Hong Kong Polytechnic University   Hong Kong
B.Sc. - Logistics Engineering with Management & Applied Mathematics; GPA: 3.96/4   *Sep 2014 - May 2018*
Courses: *Linear Algebra, Calculus, Statistics, Intro to Computer Programming, Decision Analysis, Statistical Inference*

WORK EXPERIENCE

Northwestern University   Evanston, IL, US
Teaching Assistant of Supply Chain Modeling and Analysis   *Sep 2021 - Dec 2021*
- Designed quizzes. Delivered weekly lab lectures. Held weekly office hours and revision sessions for exams.

Meyer Inc.   Hong Kong
Data Scientist Intern   *Jan 2020 - April 2020*
- Developed a Python program that automated the data pipeline including collection, cleansing, manipulation and analysis of a large set of retail sales data, and stored it with SQL.
- Performed statistical analysis on operations data with Python Scikit-learn, such as hypothesis testing, clustering, and prediction. Supported the decision-making process for marketing and operation teams.
- Created data visualization presentations with Tableau. Synthesized statistical approaches into easy-to-consume storylines for senior management to explain the results of data analysis and collect feedback

Georgia Institute of Technology   Atlanta, GA, US
Teaching Assistant of Theoretical Statistics   *Sep 2019 - Dec 2019*
- Held weekly office hours for 66 Master and Ph.D. students. Graded homeworks and exams. Proctored exams.

RESEARCH PROJECTS

- **School Bus Routing Optimization** (March 2021 - Current)
  - Cleaned and processed text & geo-location data in Python with Google Geocoding API, Networkx, Geopandas and etc.
  - Optimized bus stop locations, bus routing, and bus scheduling for more than 200 public schools in Denver. Implemented large-scale mixed integer programs in Gurobi solver and various optimization algorithms in Google OR-tools.
  - Generated interactive maps showing bus stops and bus routes with Plotly and Dash libraries.
- **Web Scraping and Natural Language Processing** (June - August 2019)
  - Built web crawlers to scrape 100K+ text data using Python Selenium, cleaned and stored data in MySQL.
  - Adopted techniques to bypass anti-scraping tools on the website, including dynamic IP rotation, automatic 'CAPTCHA' verification and utilizing headless browsers.
  - Implemented text analysis & NLP techniques on raw text data, including Chinese word parsing and bag-of-words feature extraction, and classified text with Naive Bayes in Python.
  - Conducted regression analysis in R to analyze the impact of environmental violations on companies' stock prices.
- **Patrol Officer Scheduling Optimization** (Jan - May 2019)
  - Created weekly working schedules for 16 patrol officers, resulting a 25% improvement in response efficiency.
  - Analyzed and visualized call data from 200 schools collected in the past three years; Formulated a mixed integer program to minimize total cost and solved it with Gurobi API in Python.
  - Collaboratively prepared weekly presentations and reports with team members for clients to update progress.

PRESENTATIONS AND PUBLICATIONS

- **Building an O.R. framework to drive school district policies.** Published on *ORMS-Today*.
- **Linking transportation and policy in school systems: A framework to drive education forward** (Conference presentation and abstract). *INFORMS 2021 Annual Meeting* @ Anaheim, CA

AWARDS AND SCHOLARSHIPS

- **Hong Kong Special Administrative Region Government Scholarship**. Awarded for outstanding academic performance and leadership. Top 0.5% in Hong Kong. (3 consecutive years, 2016 - 2018)
- **The Most Outstanding Student in Faculty of Engineering.** One per Faculty in HK PolyU (May, 2018)
- **HK, China-APEC Scholarship** (April, 2017)
- **Institute of Industrial and Systems Engineers (IISE HK) Scholarship** (May, 2015)

LEADERSHIP AND VOLUNTEER

- **Voluntary teaching in rural areas** (Team Leader and Voluntary Teacher)
  - Led a team of 10 preparing and delivering lectures to local junior high students in rural areas of China, one month in each year from 2015 to 2017. Liaised with the host school and sponsors for overall daily schedules.