

Shutian Li

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EDUCATION

Lehigh University

Bethlehem, PA

Department of Industrial and Systems Engineering

Master of Engineering in Management Science and Engineering; GPA: 3.83/4

Sept. 2019 - Present

Relevant Courses: Optimization Models & Application, Service Systems Engineering, Logistics and Supply Chain Management, Predictive Analytics in Business, Special Topics in Industrial and Systems Engineering, Applied Operations Research (Doctoral), Random Processes and Application (Doctoral), Nonlinear Optimization (Doctoral), Convex Analysis (Doctoral)

Northwestern Polytechnical University

Xi'an, China

School of Management

Bachelor of Business Administration & GPA: 87.12/100

Sept. 2015 - Jun. 2019

Relevant Courses: Calculus, Linear Algebra, Economics, Programming in C#, Statistics, Operations Research, Business Intelligence Introduction, Probability Theory and Mathematical Statistics

RESEARCH INTERESTS

Stochastic Modelling and Programming with application in Healthcare System, Public Policy, Transportation and Supply Chain

RESEARCH AND WORKING PROJECTS

- **Optimization in Home Healthcare Services** : Advisor: Karmel S. Shehadeh Sept. 2020 - present
Topics: Home Healthcare Routing and Scheduling under stochastic service and travel time
 - Wrote a literature review on the topic of home healthcare routing and scheduling
 - Analyzed sizes of formulations in related papers
 - Formulated a mathematical model for home healthcare routing and scheduling with multiple caregivers
 - Solve the model utilizing *PYTHON*
- **Optimization in Passenger Flow Control**: Advisor: Lawrence V. Snyder May. 2020 - present
Topics: Passenger Flow Control in Airports Under COVID-19
 - Formulate a mathematical model for Passenger Control Problem during COVID-19 using *Markov Decision Process*
 - Develop *Monte Carlo Simulation* of the problem to get the formulation of transition probability
 - Solve the problem by *PYTHON*
- **Package in Unconstrained Nonlinear Optimization**: Advisor: Daniel P. Robinson Jan. 2020 - May. 2020
 - Studied Nonlinear Optimization algorithm, such as line search method, trust region method
 - Adopted algorithms into code by *MATLAB*
- **School Bus Location and Routing Problem on Lehigh Campus**: Advisor: Albert S. Berahas Sept. 2019 - Dec. 2019
 - Worked as the group leader in the project
 - Collected data about the distribution of students living areas
 - Established the mathematical model on the basis of the *Travellers Salesman Problem (TSP)*
 - Solved the problem utilizing *AMPL*
- **A Comparison Analysis on Waste Recycling Management in China and Overseas**: Advisor: Junfei Hu Sept. 2018 - Jun. 2019
 - Explored differences of Xi'an and Singapore in the classification criteria of Municipal Solid Waste (MSW) through field trips
 - Analyzed changes in waste quantity and waste category through government documents
 - Proposed suggestions to Xi'an government on Municipal Solid Waste Management

EXTRACURRICULAR ACTIVITY

- **ORAI China, Wechat Subscription:** *Aug. 2019 - Present*
Editor, Employment Division and Operations Management Division
 - Write articles to introduce Master and PhD program related to Operations Research
 - Summarize and translated the essay related to COVID-19 and Operations Research (A Summary of Operations Research and Industrial Engineering Tools for Fighting COVID-19, Siqian Shen)
 - Summarize lectures in a Intelligent Transportation Seminar
- **National Model United Nations Conference in China 2018 :** *Mar. 2018 - Nov. 2018*
Volunteer General, Member of Secretariat
 - Designed weekly training programs and materials for 300+ volunteers and staff
 - Organized the daily workforce planning and succession planning utilizing Excel
 - Negotiated with the hotel, university and Secretary General on purchasing items, booking rooms and serving participants
- **National Model United Nations Conference in New York 2017:** *Dec. 2016 - Apr. 2017*
Delegate of Sweden, United Nations Development Programme (UNDP)
 - Simulated formal United Nations Committee Session
 - Conducted extensive research on Sweden to develop a position on topics including sustainable development and gender mainstreaming
 - Formed a task force to create a working paper addressing fundings for construction of Sustainable-Development-Goals database

HONORS AND ACTIVITIES

<i>Master's Student of the Year</i>	<i>May. 2020</i>
<i>Best Thesis</i>	<i>Jun. 2019</i>
<i>NPU Honorable Students Scholarship/First Class Scholarship (Top 10%)</i>	<i>2016-2018</i>
<i>Third Scholarship of Kewei Aerospace Technology Group Company (Top 5%)</i>	<i>Oct. 2018</i>
<i>Outstanding Delegates, China National Model United Nations Conference</i>	<i>Oct. 2017</i>
<i>Distinguished Delegation, National Model United Nations Conference in New York</i>	<i>Apr. 2017</i>

PERSONAL

- **Languages:** Mandarin Chinese (native), English (TOEFL iBT: 101, GRE: 325+3.5)
- **Skills:** Python, R, MATLAB, AMPL, GUROBI, SPSS, \LaTeX