Su Li

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EDUCATION

Texas A&M University, College Station, Texas *Sep 2019 - Expected Jun 2024*
Doctor of Philosophy in Industrial Engineering GPA: 4.00/4.00
Advisor: Dr. Hrayer Aprahamian

Georgia Institute of Technology, Atlanta, Georgia *Aug 2017 - Dec 2018*
Masters of Science in Industrial Engineering GPA: 3.60/4.00

The Hong Kong Polytechnic University, Hong Kong SAR *Sep 2013 - Jun 2017*
Bachelors of Engineering in Industrial and System Engineering GPA: 3.76/4.00 (First Class Honors)
Minor in Software Engineering

RESEARCH INTERESTS

- Optimization, with a focus on combinatorial and discrete optimization

- Network and graph analysis

- Applications in public health policy decision making

PUBLICATIONS

1. **Li, S.**, & Aprahamian, H. (2023). An Optimization-based Framework to Minimize the Spread of Diseases in Social Networks with Heterogeneous Nodes. *IISE Transactions*.

2. **Li, S.**, & Aprahamian, H. (2023). Quantifying the Benefits of Customized Vaccination Strategies: A Network-based Optimization Approach. *Naval Research Logistics (NRL)*.

3. **Li, S.**, Aprahamian, H., Nouiehed, M., & El-Amine, H. (2023). An Optimization-based Order-and-cut Approach for Fair Clustering of Datasets. *INFORMS Journal on Data Science*.

4. Barth, J., **Li, S.**, Aprahamian, H., & Gupta, D. (2023). Spatiotemporal Vaccine Allocation Policies for Epidemics with Behavioral Feedback Dynamics. *Naval Research Logistics (NRL)*.

SUBMITTED PAPERS/WORKING PAPERS

1. **Li, S.**, Aprahamian, H. & Chatterjee, S. (2023). A Convex Relaxation-Based Spatial Branching Approach for Optimal Robust Group Testing Designs under Prevalence Rate and Dilution Behavior Uncertainty. *Submitted to Operations Research*.

2. **Li, S.**, Lin, J., & Aprahamian, H. (2023). An Integrated Strategy for Controlling Infectious Disease Outbreaks: Social Distancing, Mass Screening, and Vaccine Distribution. *Working paper*.

3. Lin, J., **Li, S.**, & Aprahamian, H. (2023). A Multi-period Mass Screening Framework for the Optimal Control of Infectious Disease Outbreaks. *Working paper*.

HONORS AND AWARDS

Outstanding Doctor of Philosophy in Industrial Engineering Student, Texas A&M University, 2023

Department Entry Scholarship, Texas A&M University, 2019

Dean's Honors List of Faculty of Engineering, The Hong Kong Polytechnic University, 2013-2017

Commercial Radio 50th Anniversary Scholarship, 2016

Department Entry Scholarship, The Hong Kong Polytechnic University, 2013

CONFERENCE PRESENTATIONS

Quantifying the Benefits of Customized Vaccination Strategies: A Network-based Optimization Approach, INFORMS Annual Meeting 2022, Indianapolis, Indiana.

An Optimization-based Framework to Minimize the Spread of Diseases in Social Networks with Heterogeneous Nodes, INFORMS Annual Meeting 2023, Phoenix, Arizona.

ACADEMIC SERVICE

Conference Session Chair

Breaking the Chain: Using OR to Control Infectious Outbreaks, INFORMS Annual Meeting 2023.

RESEARCH/TEACHING EXPERIENCE

Teaching Assistant

Texas A&M University, College Station, Texas   *May 2022 - Present*

Courses:

ISEN 620/320 Survey Optimization/Operation Research I

ISEN 340 Operation Research II

ISEN 302 Economic Analysis of Engineering Projects

ISEN 230 Informatics for Industrial Engineers

Research Assistant

Texas A&M University, College Station, Texas   *Sep 2019 - Present*

Georgia Technology of Institute, Atlanta, Georgia   *May 2018 - Dec 2018*

- Conducted analysis of emergency call data, including time series analysis, and optimized officers' working zones for the Atlanta Police Department under the supervision of Dr. Yao Xie.

- Developed and implemented the Just-In-Sequence (JIS) algorithm and designed the user interface for layout software under the supervision of Dr. Benoit Montreuil.

INDUSTRIAL EXPERIENCE

Project Manager   *May 2016 - Jul 2016*

Sina Technology, China

- Facilitated communication among functional teams and stakeholders involved in the project.

- Oversaw project schedule management and resolution of conflicts.

- Conducted analysis of web advertisement data to identify customer behavior and preferences.

SKILLS

Front-end Web Development: HTML, CSS, PHP, JavaScript, jQuery, SQL.
Optimization Software: Gurobi, LINGO, AMPL, Excel Solver.
Programming Techniques: Python, MATLAB, R, C, C++, Java, VBA.
Drawing Software: Solidworks, AutoCAD, CorelDRAW

LEADERSHIP EXPERIENCE

Volunteer Team Leader   *Sep 2014 - May 2017*

Staff Evangelistic Mission of the Hong Kong Polytechnic University, Hong Kong SAR

Peer Mentor   *Sep 2014 - May 2017*

Peer Mentor Program of the Hong Kong Polytechnic University, Hong Kong SAR