

WEILIANG (LEON) LIU

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ACADEMIC EMPLOYMENT

The Chinese University of Hong Kong

Assistant Professor, Systems Engineering and Engineering Management

November 2025 (Expected)

The University of Chicago

Principal Researcher, Booth School of Business

Mentor: Amy R. Ward

August 2024 – Present

EDUCATION

National University of Singapore

Ph.D. in Industrial Systems Engineering & Management

August 2020 – February 2025

Dissertation: Next-Generation Emergency Medical Services: Optimal Network Design and Community Responder Crowdsourcing

Shanghai Jiao Tong University

B.E. in Industrial Engineering & Management

September 2016 – June 2020

SELECTED AWARDS

National Semiconductor Golden Medal and Prize, National University of Singapore

2025

Finalist, POMS-HK Best Student Paper Competition

2025

First Place, INFORMS Society on Location Analysis (SOLA) Best Student Paper Competition

2023

Chinese Government Award for Outstanding Students Abroad (6,000 USD)

2021

President's Graduate Fellowship, National University of Singapore

2020 – 2024

RESEARCH INTERESTS

Modern service operations, socially responsible operations, data-driven decision making

PUBLICATIONS

[1] Robust Data-Driven Design of a Smart Cardiac Arrest Response System

Liu, W., Sun, Q., Tang, L. & Ye, Z.

Accepted by **Production & Operations Management** (2025+)

First Place, INFORMS Society on Location Analysis (SOLA) Best Student Paper Competition, 2023

[2] Expanding Service Capabilities Through an On-Demand Workforce

Sun, X. & Liu, W.

Operations Research (2025) Vol. 73, No. 1, pp. 363-384

[3] Energy-Aware and Delay-Sensitive Management of a Drone Delivery System

Liu, W. & Sun, X.

Manufacturing & Service Operations Management (2022) Vol. 24, No. 3, pp. 1294-1310

[4] Modeling and Optimization for Emergency Medical Services Network

Liu, R., Liu, W., Liu, Y., Pan, E. & Xie, X.

IEEE Transactions on Automation Science and Engineering (2022) Vol. 19, Issue 4, pp. 3520 - 3535

WORKING PAPERS

[5] Data-Driven Matching for Impatient and Heterogeneous Demand and Supply
 Liu, W., Ward, A., & Zhang, X.
 Submitted to **Mathematics of Operations Research**

[6] Community Responder Crowdsourcing for Time-Critical Emergencies
 Liu, W., Chan, T., Tang, L. & Ye, Z.
 Major revision at **Management Science**
Finalist, POMS-HK Best Student Paper Competition, 2025

[7] Location-Allocation of Emergency Service Systems in Light Traffic
 Wang, X., Liu, W., Tang, L. & Ye, Z.
 Major revision at **Operations Research**

RESEARCH VISITS

University of Toronto (Dept. of MIE)	August - December, 2023
Host Supervisor: Timothy C. Y. Chan	
University of Florida (Dept. of ISE)	June - September, 2019
Host Supervisor: Xu Sun	

INVITED TALKS

Data-Driven Matching for Impatient and Heterogeneous Demand and Supply	
Data-Driven Techniques in Operations Research Workshop, Shenzhen, China	November 2025 (Scheduled)
BIRS Workshop: Dynamic Allocation and Matching, Banff, Canada	March 2025
The 15th POMS-HK International Conference, Hong Kong, China	January 2025
TTIC Summer Workshop on Data-Driven Decision Processes, Chicago, USA	August 2024
Reinforcement Learning for Stochastic Networks, Toulouse, France	June 2024
Community Responder Crowdsourcing for Time-Critical Medical Emergencies	
The 16th POMS-HK International Conference (Session Chair), Shenzhen, China	January 2026 (Scheduled)
INFORMS 2025 Annual Meeting, Atlanta, USA	October 2025 (Scheduled)
The 15th POMS-HK Best Student Paper Competition Session, Hong Kong, China	January 2025
INFORMS 2024 Annual Meeting, Seattle, USA	October 2024
Location-Allocation of Emergency Service Systems in Light Traffic	
The 16th POMS-HK International Conference, Shenzhen, China	January 2026 (Scheduled)
Expanding Service Capabilities Through an On-Demand Workforce	
INFORMS 2023 Annual Meeting, Phoenix, USA	October 2023
The 4th SRSE International Conference	December 2022
Robust Data-Driven Design of a Smart Cardiac Arrest Response System	
INFORMS 2023 SOLA Best Student Paper Competition Session, Phoenix, USA	October 2023
CSAMSE 2023 Annual Meeting (Session Chair), Shenzhen, China	July 2023
POMS 2023 Annual Meeting, Orlando, USA	May 2023
Energy-Aware and Delay-Sensitive Management of a Drone Delivery System	
The 3rd SRSE International Conference	November 2021

TEACHING

The University of Chicago Booth School of Business	
Bus 40110: Managing Service Operations (MBA, 80+ students in two sessions)	Winter of 2025
National University of Singapore	
IE4213/EE4802: Learning from Data (Undergraduate, 60+ students)	Springs of 2021, 2022, 2023
IE5005: Data Analytics for Industrial Engineers (Master, 230+ students)	Falls of 2021, 2022

SERVICES

Journal reviewer for Queueing Systems

Conference reviewer for M&SOM, 2025

Judge for INFORMS Public Sector Operations Research (PSOR) Best Paper Competition, 2024, 2025

PERSONAL

Languages Cantonese (native), Mandarin (native), English (fluent)

Hobbies Ultimate frisbee, Auto chess, traveling