

# WEILIANG (LEON) LIU

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## ACADEMIC EMPLOYMENT

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**The University of Chicago, Booth School of Business**

August 2024 – Present

Principal Researcher

Supervisor: Amy R. Ward

## EDUCATION

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**National University of Singapore**

August 2020 – January 2025

Ph.D. in Industrial Systems Engineering & Management

Advisors: Loon Ching Tang and Zhisheng Ye

**Shanghai Jiao Tong University**

September 2016 – June 2020

B.E. in Industrial Engineering & Management

Upper-Level GPA: 90.69/100 (Ranked 2/52)

## RESEARCH INTERESTS

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

## PUBLICATIONS

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

Sun, X. & Liu, W.

Forthcoming at **Operations Research** (2023)

[2] 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

[3] 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** (2021) Vol. 19, Issue 4, pp. 3520 – 3535

## WORKING PAPERS

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[1] Data-Driven Matching for Impatient and Heterogeneous Demand and Supply

In preparation with Amy R. Ward and Xun Zhang for **Mathematics of Operations Research**

[2] Community Responder Crowdsourcing for Time-Critical Emergencies

Liu, W., Chan, T., Tang, L. & Ye, Z.

Major revision at **Management Science**

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

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

Major revision at **Production & Operations Management**

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

[4] Location-Allocation of Emergency Service Systems in Light Traffic: Application to Lift-Trap Rescue

Wang, X., Liu, W., Tang, L. & Ye, Z.

Under review at **Operations Research**

## SELECTED AWARDS

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
Hong Yi Scholarship (3,500 USD)	2019
Overseas Research Excellence Scholarship (1,000 USD)	2019

## TEACHING EXPERIENCE

<b>The University of Chicago Booth School of Business</b> Bus 40110: Managing Service Operations (MBA)	Winter of 2025 (Scheduled)
<b>National University of Singapore</b> 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

## TALKS

<b>Data-Driven Matching for Impatient and Heterogeneous Demand and Supply</b> INFORMS 2025 APS Conference, Atlanta, USA	July 2025 (Scheduled)
POMS 2025 Annual Conference, Atlanta, USA	May 2025 (Scheduled)
BIRS Workshop: Dynamic Allocation and Matching, Banff, Canada	March 2025 (Scheduled)
The 15th POMS-HK International Conference, Hong Kong, China	January 2025 (Scheduled)
TTIC Summer Workshop on Data-Driven Decision Processes, Chicago, USA	August 2024
Reinforcement Learning for Stochastic Networks, Toulouse, France	June 2024
<b>Community Responder Crowdsourcing for Time-Critical Medical Emergencies</b> INFORMS 2024 Annual Meeting, Seattle, USA	October 2024
<b>Expanding Service Capabilities Through an On-Demand Workforce</b> INFORMS 2023 Annual Meeting, Phoenix, USA	October 2023
The 4th SRSE International Conference, Virtual	December 2022
<b>Robust Data-Driven Design of a Smart Cardiac Arrest Response System</b> 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
<b>Energy-Aware and Delay-Sensitive Management of a Drone Delivery System</b> The 3rd SRSE International Conference, Virtual	November 2021

## RESEARCH VISITS

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

## COMPUTER SKILLS

C++, Python, Gurobi, MATLAB, LaTeX, Mathematica

## PERSONAL

<b>Languages</b>	Cantonese (native), Mandarin (native), English (fluent)
<b>Interests</b>	Ultimate frisbee, traveling