

# 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 VISITS

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**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

## 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**

[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** (2022) 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**

**Finalist**, POMS-HK Best Student Paper Competition, 2025 (Winner TBD)

[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

Finalist, POMS-HK Best Student Paper Competition (Winner TBD)	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
Hong Yi Scholarship (3,500 USD)	2019
Overseas Research Excellence Scholarship (1,000 USD)	2019

## TEACHING EXPERIENCE

### The University of Chicago Booth School of Business

Bus 40110: Managing Service Operations (MBA) Winter of 2025 (Scheduled)

### 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

## TALKS

### Data-Driven Matching for Impatient and Heterogeneous Demand and Supply

INFORMS 2025 APS Conference, Atlanta, USA July 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

### Community Responder Crowdsourcing for Time-Critical Medical Emergencies

The 15th POMS-HK Best Student Paper Competition Session, Hong Kong, China January 2025 (Scheduled)

INFORMS 2024 Annual Meeting, Seattle, USA October 2024

### Expanding Service Capabilities Through an On-Demand Workforce

INFORMS 2023 Annual Meeting, Phoenix, USA October 2023

The 4th SRSE International Conference, Virtual 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, Virtual November 2021

## PERSONAL

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

**Interests** Ultimate frisbee, traveling