

WEILIANG (LEON) LIU

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ACADEMIC EMPLOYMENT

The University of Chicago, Booth School of Business

August 2024 – Present

Principal Researcher

Supervisor: Amy R. Ward

EDUCATION

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

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

PUBLICATIONS

[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

[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.

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

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|---|-----------------------------|
| 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

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| 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 |

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 | |

COMPUTER SKILLS

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

PERSONAL

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| Languages | Cantonese (native), Mandarin (native), English (fluent) |
| Interests | Ultimate frisbee, traveling |