

WEILIANG (LEON) LIU

Industrial Systems Engineering and Management, National University of Singapore, Singapore

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EDUCATION

National University of Singapore (NUS)

2020 – 2024 (Expected)

Ph.D. in Industrial Systems Engineering & Management

Advisors: Loon Ching Tang and Zhisheng Ye

Shanghai Jiao Tong University

2016 – 2020

B.E. in Industrial Engineering & Management

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

RESEARCH INTERESTS

Stochastic modeling, optimal control, dynamic programming, robust optimization

Modern service systems operations, emergency response for social good, control and learning of queuing systems

COMPLETED PAPERS

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

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

Under review

First Place, INFORMS 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.

Reject and resubmit at **Management Science**

[5] *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

WORK IN PROGRESS

[6] *Efficient Community Responder Crowdsourcing for Time-Critical Emergencies*

In preparation with Timothy C.Y. Chan et al, 2023

SELECTED AWARDS

First Place, INFORMS SOLA Best Student Paper Competition

2023

— “Given biennially for student papers judged to be the best in the broad field of facility location”

Chinese Government Award for Outstanding Students Abroad

2021

— “The highest government award granted by the Chinese government to Chinese students overseas”

President's Graduate Fellowship — "Awarded to Ph.D. candidates who show exceptional promise or accomplishment in research"	2020 - Present
Hong Yi Scholarship (3,500 USD)	2019
Overseas Research Excellence Scholarship (1,000 USD)	2019

RESEARCH EXPERIENCES

University of Toronto Visiting Graduate Student, Dept. of Mechanical & Industrial Engineering Supervisor: Timothy C. Y. Chan	August - December, 2023
University of Florida Undergraduate Research Intern, Dept. of Industrial & Systems Engineering Supervisor: Xu Sun (now at Miami Herbert Business School)	June - September, 2019

CONFERENCE PRESENTATIONS

INFORMS 2023 Annual Meeting, Phoenix, USA	October 2023
CSAMSE 2023 Annual Meeting (Session Chair), Shenzhen, China	July 2023
POMS 2023 Annual Meeting, Orlando, USA	May 2023

TEACHING EXPERIENCE

IE4213/EE4802: Learning from Data (Undergraduate, 60+ students), NUS	Springs of 2021, 2022, 2023
IE5005: Data Analytics for Industrial Engineers (Master, 230+ students), NUS	Falls of 2021, 2022

COMPUTER SKILLS

Programming Language	C++, Python
Software	Gurobi, MATLAB, LaTeX, Mathematica

PERSONAL

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

REFERENCES

Zhisheng Ye Associate professor National University of Singapore yez@nus.edu.sg	Xu Sun Assistant professor Miami Herbert Business School xzs767@bus.miami.edu	Loon Ching Tang Professor National University of Singapore isetlc@nus.edu.sg
Timothy C. Y. Chan Professor University of Toronto tcy.chan@utoronto.ca		