

WEILIANG (LEON) LIU

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

Email: weiliangliu@u.nus.edu ◊ Homepage: weiliangliu-nus.github.io

Last Updated: May, 2023

EDUCATION

National University of Singapore (NUS)

2020 – 2024 (Expected)

Ph.D., Industrial Systems Engineering & Management

Advisors: Loon Ching Tang and Zhisheng Ye

Shanghai Jiao Tong University

2016 – 2020

B.E., Industrial Engineering and Management

RESEARCH INTERESTS

Stochastic modeling, diffusion approximation, optimal control, robust optimization

Service operations, healthcare operations, smart city operations

COMPLETED PAPERS

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

Sun, X. & Liu, W.

Accepted by **Operations Research** (June, 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

[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] *Optimal Alert of Community Responders*

In Preparation.

OTHER RESEARCH EXPERIENCE

University of Toronto

August - December, 2023 (Expected)

Visiting Graduate Student, Mechanical & Industrial Engineering

Supervisor: Timothy C. Y. Chan

University of Florida

June - September, 2019

Research Intern, Industrial & Systems Engineering

Supervisor: Xu Sun

TEACHING EXPERIENCE

IE4213/EE4802: Learning from Data (Undergraduate), NUS	2020, 2021, 2022
IE5005: Data Analytics for Industrial Engineers (Master), NUS	2021, 2022

SELECTED AWARDS

Chinese Government Award for Outstanding Students Abroad (6,000 USD)	2021
President's Graduate Fellowship	2020 - Present
Hong Yi Scholarship (3,500 USD)	2019
Overseas Research Excellence Scholarship (1,000 USD)	2019

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 University of Florida xusun@ufl.edu	Loon Ching Tang Professor National University of Singapore isetlc@nus.edu.sg
---	--	--