

# WEILIANG (LEON) LIU

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

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## EDUCATION

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### 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

## RESEARCH INTERESTS

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Stochastic modeling, diffusion approximation, optimal control, dynamic programming, robust optimization

Service operations, healthcare operations, learning in queues

## COMPLETED PAPERS

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[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

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

In Preparation.

## RESEARCH EXPERIENCES OUTSIDE NUS

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### University of Toronto

August - December, 2023 (Expected)

Visiting Graduate Student, Dept. of Mechanical & Industrial Engineering

Supervisor: Timothy C. Y. Chan

### University of Florida

June - September, 2019

Undergraduate Research Intern, Dept. of Industrial & Systems Engineering

Supervisor: Xu Sun (now at Miami Herbert Business School)

## TEACHING EXPERIENCE

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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

## SELECTED AWARDS

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Chinese Government Award for Outstanding Students Abroad — “ <i>The highest government award granted by the Chinese government to Chinese students overseas</i> ”	2021
President’s Graduate Fellowship — “ <i>Awarded to Ph.D. candidates who show exceptional promise or accomplishment in research</i> ”	2020 - Present
Hong Yi Scholarship (3,500 USD)	2019
Overseas Research Excellence Scholarship (1,000 USD)	2019

## COMPUTER SKILLS

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<b>Programming Language</b>	C++, Python
<b>Software</b>	Gurobi, MATLAB, LaTeX, Mathematica

## PERSONAL

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

## REFERENCES

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