

Yuxin(Louis) Liu

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EDUCATION

University of Pittsburgh

Ph.D. in Industrial Engineering

2023 – 2026(Expected)

Pennsylvania, United States

Tianjin university

M.S. in System Engineering

2020 – 2023

Tianjin, China

Jilin university

B.A. in Economics

2016 – 2020

Jilin, China

WORK EXPERIENCE

University of Pittsburgh

Graduate Student Researcher

09/2023 – Present

Pittsburgh, USA

Electronic Technology Information Research Institute of MMIT

Researcher

06/2021 – 08/2021

Beijing, China

PUBLICATIONS

- Liu, Y., Garimella, K.* , and Rahimian, A. Structural Dynamics of Harmful Content Dissemination on WhatsApp. *ICWSM Conference 2026*
- Liu, Y. and Rahimian, A.* Privacy-Preserving Sequential learning. *4-pages Abstract published at FORC 2025*
- Ma, J., Liu, Y., Zhao, L.* , and Liang, W.(2024). Research on the mechanism and application of spatial credit risk contagion based on complex network model. *Managerial and Decision Economics*, 45(2), 1180–1193.
- Ma, J., Liu, Y.* , and Geng, L. (2023). Does Green Credit Financing Mode with Cap and Trade Scheme Really Benefit All Members? *Managerial and Decision Economics*, 44(7), 4173–4192.
- Ma, J., Chen, J., and Liu, Y.* (2022). Research on Optimization of Food Supply Chain Considering Product Traceability Recall and Safety Investment. *Managerial and Decision Economics*, 43(8), 3953–3972.
- Li, Y., Ma, J., and Liu, Y.* (2022). Study on the Complexity of Channel Pricing Game in Showrooming O2O Supply Chain. *RAIRO - Operations Research*, 56(5), 3373-3392.

WORKING PAPERS

- Rahimian, A.* , Yu, F., and Liu, Y. Seeding with differentially private network information.
- Liu, Y. and Rahimian, A.* Privacy-Aware Sequential learning. *Under Review at Operations Research*

WORK IN PROGRESS

- Liu, Y. and Rahimian, A.* Privacy-preserving Information sharing in Oligopoly Competitions.
- Liu, Y. and Jiong Sun.* The Strategic Role of Privacy Protection: Achieving a Win-Win in Two-Sided Digital Marketplaces.
- Liu, Y. and Zhe Yang.* Recommendation System Design in Competing Marketplaces.

CONFERENCE PRESENTATIONS

Virality of Information Diffusion on WhatsApp

10th International Conference on Computational Social Science, 2024, Philadelphia, Pennsylvania, United States

2024 Purdue Operations conference 2024, West Lafayette, Indiana, United States

Differential Private Sequential learning.

Theory and Practice of Differential Privacy, 2024, Boston, Massachusetts, United States

The 6th AAAI Workshop on Privacy-Preserving Artificial Intelligence 2025, Philadelphia, Pennsylvania, United States

Seeding with differentially private network information.

The 6th AAAI Workshop on Privacy-Preserving Artificial Intelligence 2025, Philadelphia, Pennsylvania, United States

The Strategic Role of Privacy Protection: Achieving a Win-Win in Two-Sided Digital Marketplaces.

Annual POMS Conference, 2025, Atlanta, Georgia, United States

Recommendation System Design in Competing Marketplaces.

Inform 2025 Annual Meeting, 2024, Atlanta, Georgia, United States

SELECTED HONORS & AWARDS

- Travel Grant from The 6th AAAI Workshop on Privacy-Preserving Artificial Intelligence
- Travel Grant from INFORMS Applied Probability Society Conference
- Travel Grant from Symposium on the Foundations of Responsible Computing
- Merit Scholarship of Tianjin University - 2020-2021, 2022-2023
- Merit Scholarship of Jilin University - 2016-2017, 2017-2018, 2018-2019, 2019-2020
- National Prize of China Graduate Mathematical Contest in Modeling - Dec 2021

TEACHING EXPERIENCE

IE 2117, Data for Social Good, Fall, 2024

IE 1072, Design of Experiments and Quality Assurance, Fall, 2024

PROFESSIONAL SERVICES

Conference Reviewer: Neural Information Processing Systems (NeurIPS), International Conference on Learning Representations (ICLR), International Conference on Artificial Intelligence and Statistics (AISTATS), The Web Conference (WWW).

Journal Reviewer: Omega, IEEE Transactions on Control of Network Systems, IEEE Transactions on Signal and Information Processing over Networks, Future Generation Computer Systems, Physica A: Statistical Mechanics and its Applications, Applied Mathematics and Computation, IEEE Transactions on Network Science and Engineering, Big Data Mining and Analytics.