

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

PUBLICATIONS

- 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

- Liu, Y., Garimella, K.*, and Rahimian, A. Structural Dynamics of Harmful Content Dissemination on WhatsApp. *Under review at The Web Conference 2025*
- Rahimian, A.* , Yu,F., Liu, Y. and Hurtado, C. Seeding with differentially private network information. *Under review at Operations Research*

WORK IN PROGRESS

- Liu, Y. and Rahimian, A.* Differential Private Sequential learning.
- 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-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

The 6th Annual Symposium on Foundations of Responsible Computing 2025, Stanford, California, United States

Seeding with differentially private network information.

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

Novel Method to Approximate the Generalized Poisson Binomial Distribution *SIAM Conference on Financial Mathematics and Engineering, 2023, Philadelphia, Pennsylvania, United States*

Measuring Regional Financial Cycles with Dynamic Hierarchical Factor Model

The Eleventh International Symposium of Quantitative Economics, 2022, Changchun, Jilin, China

SELECTED HONORS & AWARDS

- 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.