

Jiannan Xu

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Education

University of Maryland (College Park, MD)
Ph.D. in Operations Management, Sep. 2021 – Present
Minor in Computer Science

University of Michigan (Ann Arbor, MI)
M.S. in Applied Statistics, 2021

Xiamen University (Xiamen, China)
B.Mgmt. in Financial Management, 2019
B.S. in Mathematical Statistics, 2019

Affiliation

Institute for Trustworthy AI in Law & Society, Graduate Student Affiliate, 2023 – Present
Maryland Language Science Center, Graduate Student Affiliate, 2024 – Present

Research Interests

Substantive: Marketplace Analytics, Service Operations, AI for Social Good
Methodological: Natural Language Processing, Machine Learning, Causal Inference

Working Papers

W1. Personalized Assortment Optimization for a Subscription Business Model of Experience Goods [Paper]

Jiannan Xu, Gah-Yi Ban, Wedad J. Elmaghraby, and L. Beril Toktay
Reject and Resubmit at Management Science (2025)
★ Media Coverage: [Imperial Business Knowledge](#)

W2. AI Self-prefencing in Algorithmic Hiring: Empirical Evidence and Insights [Paper]

Jiannan Xu, Gujie Li, and Jane Yi Jiang
Under Review at Manufacturing & Service Operations Management (2026)
★ Media Coverage: [The Register](#)
★ Runner-up, Best Student Paper, Conference on Information Systems and Technology 2025
★ Finalist, Best Student Paper Presentation Award, AI in Business Conference at OSU 2025
★ Winner, INFORMS MIF Summer Webinar Competition 2025
★ Third Place, INFORMS K-12 Poster Competition 2025
★ Second Place, OR/MS Tomorrow Mini Poster Competition 2025

Computer Science Publications

C1. Towards Conceptualization of “Fair Explanation”: Impact of Asian Hate Speech Explanations on Content Moderators [Paper][Code]

Tin Trung Nguyen[†], Jiannan Xu[†], Aayushi Roy, Hal Daumé III, and Marine Carpuat
In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP 2023)

C2. Effort-aware Fairness: Incorporating a Philosophy-informed, Human-centered Notion of Effort into Algorithmic Fairness Metrics [Paper][Code]

Tin Trung Nguyen[†], Jiannan Xu[†], Zora Che, Phuong-Anh Nguyen-Le, Rushil Dandamudi, Donald Braman, Hal Daumé III, Furong Huang, and Zubin Jelveh
In Proceedings of the Eighth AAI/ACM Conference on AI, Ethics, and Society (AAAI/ACM AIES 2025)

C3. Which Demographic Features Are Relevant for Individual Fairness Evaluation of U.S. Recidivism Risk Assessment Tools? [Paper][Code]

Tin Trung Nguyen, Jiannan Xu, Phuong-Anh Nguyen-Le, Donald Braman, Jonathan Lazar, Hal Daumé III, and Zubin Jelveh
In Proceedings of the Twentieth International Conference on Artificial Intelligence and Law (ICAIL 2025)

[†] Equal contribution

Selected Work in Progress

P1. How Online Labor Matches Succeed or Fail: Evidence from Large-Scale Client–Freelancer Conversations

Jiannan Xu, Wedad J. Elmaghraby, Ashish S. Kabra, and Kungpeng Zhang
★ Supported by OpenAI Researcher Access Program (\$1,000)
★ Supported by the Smith Internal Grant (\$10,000)
★ Finalist, UMD Three-Minute Thesis (3MT) Competition 2025

P2. AI-Infused Nudges for Supply Chain Decision Making

Jiannan Xu, Jane Yi Jiang, and Wedad J. Elmaghraby
★ Supported by Faculty-Student Research Award (\$15,000)

Invited Seminars and Conference Presentations

Academic

INFORMS Annual Meeting	2023 – 2026
INFORMS MSOM Conference	2025
INFORMS Revenue Management and Pricing Section Conference	2025
INFORMS Workshop on Data Science	2025
INFORMS Workshop on Data Mining and Decision Analytics	2025
Conference on Information Systems and Technology	2025
POMS Conference	2023 – 2026
POMS-HK Conference	2026
Purdue Operations Conference	2023 – 2024
Conference on Artificial Intelligence, Machine Learning, and Business Analytics	2024 – 2025
Workshop on AI & Analytics for Social Good at UMD	2026
Accountable AI Research Conference at Wharton	2026
AI for Business Conference at HKU	2026

3rd Workshop on Empirical Operations Management at NUS	2026
3rd Annual Business & Generative AI Conference at Wharton	2025
3rd Annual Philadelphia Operations and Technology Day	2025
AI in Business Conference at OSU	2025
AAAI/ACM AIES 2025 (Oral presentation; 6% of 748 submissions)	2025
ACM EAAMO'25 (Oral presentation; 25.4% of 126 submissions)	2025
Industry	
Amazon Economics Science Team	2026
Stitch Fix Algo Hours	2025

Teaching

Instructor: BMGT 230 Business Statistics, Summer 2024, Winter 2025, Winter 2026
Teaching Assistant: BUSI 752 Data Mining & Predictive Analytics, Summer 2022
Tutor: ECON 603 Microeconomic Theory I, Fall 2023

Service

President, INFORMS University of Maryland Student Chapter, Spring 2023 – Present
Graduate Student Government Representative, University of Maryland, Fall 2022 – Spring 2024
Conference Reviewer: EMNLP 2023, ICLR 2024 Tiny Papers, NAACL Student Research Workshop 2024, INFORMS Data Science Workshop (2024, 2025), COLM (2025, 2026), WITS 2025, PACIS 2026, MSOM 2026
Program Committee: ACM EAAMO (2025, 2026), ACM/AAAI AIES 2025, AAI Special Track on AI for Social Impact (AISI) 2026, ACM FAccT 2026
Journal Reviewer: INFORMS Journal on Computing, Artificial Intelligence and Law
Session Chair: POMS (2024, 2025, 2026), MSOM 2025, INFORMS 2026

Grants and Fellowships

External	
POMS College of Supply Chain Management Doctoral Fellowship	2025
OpenAI Researcher Access Program (\$1,000)	2025
EAAMO'25 Travel Grant Award (\$1,050)	2025
Institute for Humane Studies Research Grant (\$1,500)	2025
Internal	
Ann G. Wylie Dissertation Fellowship (\$15,000)	2026
Smith Internal Research Grant (\$10,000)	2025
Jacob K. Goldhaber Travel Grant (\$1,500)	2024 – 2026
International Conference Student Support Award (\$1,000)	2025 – 2026
Faculty–Student Research Award (\$15,000)	2024
Dean’s Fellowship (\$32,000)	2021 – 2025

Awards and Honors

External	
Runner-up, Best Student Paper, Conference on Information Systems and Technology	2025
Finalist, Best Student Paper Presentation Award, AI in Business Conference at OSU	2025
Winner, INFORMS MIF Summer Webinar Competition	2025

Third Place, INFORMS K-12 Poster Competition	2025
Second Place, OR/MS Tomorrow Mini Poster Competition	2025
Honorable Mention, INFORMS Student Chapter Annual Award	2023, 2025
Cum Laude, INFORMS Student Chapter Annual Award	2024
Internal	
Outstanding Graduate Assistant Award (Top 2%), University of Maryland	2026
Finalist, Three-Minute Thesis (3MT) Competition, University of Maryland	2025
Dean's List, Xiamen University	2016 – 2019
Scholarship of Academic Excellence, Xiamen University	2016 – 2019
National Scholarship (Top 0.2% of students nationwide)	2016

Professional Experience

Data Scientist Intern, CIDER, May. 2021 – Aug. 2021

Selected Graduate Coursework

Computer Science: Natural Language Processing; Explainable Natural Language Processing; Trustworthy Machine Learning; Human-AI Interaction; Algorithms in Machine Learning: Guarantees and Analyses; Fantastic Machine Learning Paradigms and Where to Use Them

Economics: Microeconomic Theory I & II; Econometrics I & II; Structural Models; Empirical Industrial Organization; Computational Economics; Information Economics

Statistics: Linear Models; Statistical Theory; Statistical Inference; Statistical Computing; Bayesian Modeling; Applied Multivariate Analysis

Optimization and Stochastic Models: Linear Programming; Probabilistic Models; Convex Optimization

Skills and Other Activities

Languages: Mandarin (Native), English (Fluent), French (Beginner)

Coding Skills: Advanced in Python, R, SAS, and SQL; Intermediate in Matlab, Stata, and Stan

Other Activities: Toastmasters member, swimming, and drawing