Kan Xu

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Political Science and Economics
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Education

University of Pennsylvania — Philadelphia, PA
Ph.D. in Economics — 2018 – 2023 (Expected)

University of Chicago — Chicago, IL
M.S. in Statistics — 2015 – 2017

Tsinghua University — Beijing, China
B.S. in Mathematics — 2011 – 2015
B.A. in Economics — 2013 – 2015

Research Interests

(Sequential) data-driven decision making: bandit algorithms, reinforcement learning
Data-collaborative machine learning: multitask learning, transfer learning, federated learning
High-dimensional statistics: LASSO, matrix factorization
Others: safety, robustness, natural language processing, healthcare operations, dynamic pricing

Working Papers

Learning Across Bandits in High Dimension via Robust Statistics
(with Hamsa Bastani)
[**Job Market Paper**]
Major Revision, **Management Science**

Group-Sparse Matrix Factorization for Transfer Learning of Word Embeddings
(with Xuanyi Zhao, Hamsa Bastani and Osbert Bastani)
Under Review, **Management Science**
- Preliminary version in International Conference on Machine Learning (ICML), 2021

Robust Generalization of Quadratic Neural Networks via Function Identification
(with Hamsa Bastani and Osbert Bastani)

Mind the Gap: Safely Bridging Offline and Online Reinforcement Learning
(with Wanqiao Xu, Jason Yecheng Ma, Hamsa Bastani and Osbert Bastani)

Two-Stage Maximum Score Estimator
(with Wayne Gao, Sheng Xu)

Publications

Group-Sparse Matrix Factorization for Transfer Learning of Word Embeddings
(with Xuanyi Zhao, Hamsa Bastani and Osbert Bastani)
International Conference on Machine Learning (ICML), 2021

Talks

Learning Across Bandits in High Dimension via Robust Statistics
INFORMS Annual Meeting — 2022
MSOM Conference — 2022
RMP Conference — 2022
NYC Operations Day — 2022

Group-Sparse Matrix Factorization for Transfer Learning of Word Embeddings

INFORMS Annual Meeting	2021
ICML Conference	2021
MSOM Conference	2021
RMP Conference	2021
INFORMS Annual Meeting	2020

Teaching Experience

University of Pennsylvania
Teaching Assistant, ECON 705 Econometrics I (PhD)   2020

The Wharton School, University of Pennsylvania
Teaching Assistant, OIDD 612 Business Analytics (MBA)   2021

Awards and Honors

Xingmei Zhang & Yongge Dai Fellowship   2020 – 2021

Service

Reviewer for Management Science, Operations Research

Professional Experience

Moelis & Company   New York, NY
Data Science Intern   Summer 2020

Skills

Programming: Python, R, MATLAB, SQL, Bash, Git, STATA, ArcGIS
Languages: English (professional), Chinese (native)

References

Prof. Hamsa Bastani (Advisor)
Operations, Information and Decisions
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Prof. Noah Gans
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Prof. Osbert Bastani
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