

# Kan Xu

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Political Science and Economics  
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## Education

**University of Pennsylvania**  
Ph.D. in Economics

Philadelphia, PA  
2018 – 2023 (Expected)

**University of Chicago**  
M.S. in Statistics

Chicago, IL  
2015 – 2017

**Tsinghua University**  
B.S. in Mathematics  
B.A. in Economics

Beijing, China  
2011 – 2015  
2013 – 2015

## Research Interests

**(Sequential) data-driven decision making:** bandit algorithm, 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
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### **The Wharton School, University of Pennsylvania**

Teaching Assistant, OIDD 612 Business Analytics (MBA)	2021
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## **Awards and Honors**

Xingmei Zhang & Yongge Dai Fellowship	2020 – 2021
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## **Service**

Reviewer for Management Science, Operations Research

## **Professional Experience**

### **Moelis & Company**

Data Science Intern	New York, NY
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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  
The Wharton School  
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### **Prof. Noah Gans**

Operations, Information and Decisions  
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### **Prof. Osbert Bastani**

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University of Pennsylvania  
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