Hansheng Jiang

Personal

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Education

University of California, Berkeley
Ph.D. in Industrial Engineering & Operations Research — 2023 (Expected)
Minors in Statistics and Electrical Engineering
Advisor: Prof. Zuo-Jun Max Shen
Co-advisor: Prof. Aditya Guntuboyina (Department of Statistics)

University of Science and Technology of China
B.S. in Mathematics — 2017

Research Interests

Data-driven decision-making, data analytics, stochastic modeling, nonparametric statistics, machine learning, applications in retailing, supply chains, transportation, etc.

Papers

1. Hansheng Jiang, Junyu Cao, Zuo-Jun Max Shen. Intertemporal Pricing via Nonparametric Estimation: Integrating Reference Effects and Consumer Heterogeneity. *Manufacturing & Service Operations Management (Articles in Advance) 2022.*

   Finalist, MSOM Data-Driven Research Challenge 2020

2. Hansheng Jiang, Adityanand Guntuboyina. A Nonparametric Maximum Likelihood Approach to Mixture of Regression. Under revision for resubmission to *Journal of the American Statistical Association.*

   Winner, Best Student Paper Award in Theory & Methods by the International Indian Statistical Association (IISA) 2020

3. Hansheng Jiang*, Shunan Jiang*, Zuo-Jun Max Shen. Learning While Repositioning in On-Demand Vehicle Sharing Systems. Under review at *Management Science.*

   Winner, YinzOR Student Conference Flash Talk Competition 2022

4. Mengzi Amy Guo, Hansheng Jiang, Zuo-Jun Max Shen. Multi-Product Dynamic Pricing with Reference Effects Under Logit Demand. Under review at *Operations Research.*

5. Lin Zhao*, Hansheng Jiang*, Mengshi Lu, Zuo-Jun Max Shen, Kemal Guler. Supply Chain Forecast Sharing Under Asymmetric Forecast Preferences. Under major revision at *Production and Operations Management.*

6. Hansheng Jiang, Zuo-Jun Max Shen, Junyu Liu. Quantum Computing Methods for Supply Chain Management. *Proceedings of 2022 IEEE/ACM 7th Symposium on Edge Computing (SEC) Workshop on Quantum Computing.*

* indicates equal contribution.

Code & Software

Reference Effects: Estimation and optimization under consumer heterogeneity. [Code]
NPMLE: Nonparametric estimation of mixture of regression. [Code]

Teaching Experience

Instructor

STAT 153: Introduction to Time Series Spring 2023
Undergraduate statistics elective course taught by me

Graduate Student Instructor

UGBA 141: Production & Operations Management Spring 2022
Undergraduate business elective course taught by Prof. Park Sinchaisri

IEOR 173: Introduction to Stochastic Processes Spring 2020
Undergraduate operations research core course taught by Prof. Zeyu Zheng

IEOR 262A: Mathematical Programming Fall 2019
PhD operations research core course taught by Prof. Alper Atamtürk

Grader

UGBA 106: Marketing Fall 2020
Undergraduate business core course taught by Prof. Ming Hsu

IEOR 263A: Applied Stochastic Processes Fall 2018
PhD operations research core course taught by Prof. Rhonda Righter

Undergraduate Student Instructor

MATH 100201: Multivariate Real Analysis Spring 2016
Undergraduate mathematics core course taught by Prof. Jiansong Deng

Industry Experience

Amazon
Supply Chain Optimization Technologies (SCOT) Team, New York City, NY
Manager: Dr. Abhishek Gupta

Research Scientist II Intern May 2021 – Aug 2021

- I built statistical models and conducted data analysis to analyze the impacts of delivery speed on demand. I provided counterfactual predictions that helped the inventory planning and control team select the most desired products for the faster delivery program.
- I coauthored a technical report, and the report was accepted to the causal inference workshop in Amazon's internal annual machine learning conference.

Research Scientist I Intern May 2020 – Aug 2020

- I worked as part of the demand forecasting team to provide reliable demand predictions to guide downstream decision-making amid the challenges of oscillating demand and unstable supply during COVID-19.
- I developed a demand forecasting methodology with fine granularity in time and space. My prototyped model was continued by the team for production in the whole US marketplace after my internship.

Alibaba Group
Data Science Decision Support Team of Alibaba Cloud, Sunnyvale, CA
Manager: Dr. Wanyi Zhu

Student Research Intern May 2019 – Aug 2019

- I studied and proposed time series forecasting methods for cloud computing demand.

Other Experience

University of California, Los Angeles
Department of Statistics
Mentor: Prof. Ying Nian Wu

Research Assistant June 2016 – Sept 2016

Selected Honors & Awards

- Winner, YinzOR Student Conference Flash Talk Competition — 2022
- Finalist, MSOM Data-Driven Research Challenge — 2020
- Winner, IISA Best Student Paper Award in Theory & Methods — 2020
- Berkeley Fellowship — 2017 – 2022
- Outstanding Graduate Award (provincial) — 2017
- UCLA-CSST Fellowship — 2016
- Hua Luogeng Mathematics Scholarship — 2015
- National Scholarship in China (top 2% of the department) — 2015 & 2016
- First Prize, National College Student Mathematics Contest — 2014
- First Prize, China Mathematical Olympiad (provincial) — 2012
- Silver Medal, China Girls Mathematical Olympiad — 2011 & 2012

Talks

Intertemporal Pricing via Nonparametric Estimation: Integrating Reference Effects and Consumer Heterogeneity

- INFORMS Annual Meeting, Anaheim, CA — Oct 2021
- INFORMS Revenue Management & Pricing Conference — June 2021
- MSOM Data-Driven Challenge Finalist Presentation — Nov 2020
- INFORMS Annual Meeting, Online — Oct 2020
- INFORMS Annual Meeting, Seattle, WA — Nov 2019

A Nonparametric Maximum Likelihood Approach to Mixture of Regression

- IISA Student Paper Award Presentation — July 2020
- Amazon SCOT Visiting BAIR Workshop, Berkeley, CA — Jan 2020

Learning While Repositioning in On-Demand Vehicle Sharing Systems

- YinzOR Student Conference, Pittsburgh, PA — Aug 2022
- INFORMS Revenue Management & Pricing Conference — June 2022

Services & Activities

Session Chair of "Learning and Optimization in Pricing" at INFORMS 2022

Departmental Service

- Volunteer, IEOR new student orientation — 2019, 2021 & 2022
- Panelist, IEOR information session for prospective students — 2021
- Signatory committee member, IEOR graduate student organization — 2020

Reviewer for *Management Science*, *Annals of Statistics*

Technical Skills

Python, R, SQL, LaTeX, HTML, Gurobi, AMPL, experience with large-scale real-data processing and analyzing

References

Zuo-Jun Max Shen (Professor)
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Adityanand Guntuboyina (Associate Professor)
University of California, Berkeley
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Junyu Cao (Assistant Professor)
University of Texas at Austin
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Park Sinchaisri (Assistant Professor)
University of California, Berkeley
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