

MENGXIN WANG

<https://mxwang.site>

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Education

University of California, Berkeley

Berkeley, CA

Ph.D in Industrial Engineering and Operations Research

May 2023 (Expected)

Minor in Statistics and Machine Learning

Advisor: Dr. Zuo-Jun (Max) Shen

University of California, Berkeley

Berkeley, CA

M.S in Industrial Engineering and Operations Research

May 2018

Tsinghua University

Beijing, China

B.Eng in Industrial Engineering (Summa Cum Laude; 1/71)

June 2017

Honors and Awards

IEOR Faculty Fellowship

2022

The IEO Faculty Fellowship is the highest graduate student award in the department given each year to recognize one student for their overall academic excellence and leadership

Teaching Effectiveness Award

2022

This award recognizes the teaching ideas of up to fourteen Outstanding Graduate Student Instructors each year across UC Berkeley

Outstanding Graduate Student Instructor Award

2021

This award honors UC Berkeley GSIs each year for their outstanding work in teaching on the Berkeley campus

Graduate Remote Instruction Innovation Fellowship

2021

Fellowship of \$2,000 for students at UC Berkeley to develop high-quality approaches for remote instruction for spring and summer 2021 courses

IEOR Department Award

2017-2020

Graduate Division Block Grant Award

2017

Beijing Outstanding Graduate

2017

University Outstanding Graduate

2017

Boeing Fellowship

2016

Science and Technology Innovation Fellowship

2016

Academic Excellence Fellowship

2015-2016

Tsinghua-Changhong Fellowship

2014

Research Interests

Algorithm and strategy design for operations management problems, including online resource allocation, revenue management, and supply chain management; Machine learning methods and their applications in operations research.

Professional Experience

Uber

June 2020 - August 2020

Data Science Intern @ Eats Pricing Team

- Worked on demand modeling and delivery fee optimization based on large-scale pricing data
- Proposed and implemented a delivery fee optimization framework to allocate a \$20m budget for boosting business, which was launched in the U.S. market from 2020 Q3
- Developed an automated pipeline integrating data analysis, modeling, and optimization

Publications

Journal Papers

1. “Joint Product Design and Dynamic Assortment Optimization: Integrating Strategic and Tactical Revenue Management”. 2022. Major Revision at *Management Science*.
(with Paat Rusmevichientong, Heng Zhang, Zuo-Jun Max Shen)
2. “Content Promotion for Online Content Platforms with Diffusion Effect”. 2021. Major Revision at *Manufacturing & Service Operations Management*.
Finalist, Best Student Paper of Social Media Analytics 2022
(with Yunduan Lin, Heng Zhang, Renyu Zhang, and Zuo-Jun Max Shen)
3. “Urban Courier: Operational Innovation and Data-driven Coverage-and-Pricing”. 2020. To be submitted to *Manufacturing & Service Operations Management*.
(with Meng Qi, Junyu Cao, and Zuo-Jun Max Shen)
4. “Modeling and Analysis of the Waiting Time of Rapid Response Process in Acute Care”. 2018. *IEEE Robotics and Automation Letters*.
(with Nan Chen, Xiaolei Xie, Li Zheng, and Colleen H. Swartz)

Workshop

1. “Smart Feasibility Pump: Reinforcement Learning for (Mixed) Integer Programming”. 2021. ICML 2021 RL for Real Life Workshop.
Selected for Spotlight Talk
(with Meng Qi and Zuo-Jun Max Shen)

Book Chapter

1. “Online Retailing Inventory Management”. 2021. Invited book chapter for *Research Handbook on Inventory Management*.
(with Zuo-Jun Max Shen)

Work-in-Progress

1. “Data-driven Non-parametric Product Design”. 2022. Target Journal: *Management Science*.
(with Meng Qi and Zuo-Jun Max Shen)

Teaching Experiences

Co-instructor

IEOR 253/CEE 258 Supply Chain and Logistics Management (Spring 2021)

Teaching evaluation: 4.75/5.00 (IEOR 253, department average 4.22), 5.00/5.00 (CEE 258)

- PhD/MS core course covering fundamental and selected state-of-the-art topics of supply chain and logistics management

Graduate Student Instructor

IEOR 242 Applications in Data Analytics (Spring 2019, Fall 2019, Fall 2020)

- M.Eng core class with 120+ students covering theory and practical techniques of data analytics
- Held weekly discussion sessions and office hours
- Mentored more than 40 student projects on data analytics applications

Reader

IEOR 172 Probability and Risk Analysis for Engineers (Fall 2018)

- Supported 70+ undergraduate students with fundamental topics of probability theory; graded homework and held weekly office hours

Contributed and Invited Talks

Urban Courier: Operational Innovation And Data-driven Coverage-and-pricing

- *INFORMS Annual Meeting*, Seattle, WA, 2019
- *INFORMS Annual Meeting*, Virtual 2020
- *International Symposium on Transportation Data and Modelling (ISTDM)*, 2021

Smart Feasibility Pump: Reinforcement Learning for (Mixed) Integer Programming

- *ICML 2021 RL for Real Life Workshop Spotlight Talk*, Virtual, 2021

Joint Product Design and Dynamic Assortment Optimization: Integrating Strategic and Tactical Revenue Management

- *POMS Annual Conference*, Virtual 2022
- *INFORMS Revenue Management and Pricing (RMP) Section Conference*, Virtual 2022

Academic Service

Reviewer for Management Science

Reviewer for NeurIPS 2022 workshop on RL for Real Life

Session chair of “Innovation and algorithm advances in online marketplace”, INFORMS 2022

Computing

Python, R, SQL, Matlab, Gurobi, Tensorflow, PyTorch