

MENG QI

Email: meng_qi@berkeley.edu

Homepage: alicemengqi.github.io/site/

EDUCATION

University of California, Berkeley

August 2016 - Present

Ph.D Candidate in Industrial Engineering and Operations Research

Advisor: Zuo-Jun (Max) Shen

Tsinghua University

August 2012 - July 2016

B.S. in Mathematics and Physics

RESEARCH INTERESTS

My research focuses on data-driven decision making with uncertainty, with application in supply chain management and retail operations. I am particularly interested in robust data-driven solutions and the integration of the prediction and optimization stages in decision making. My research interest also includes the interface of operations management and machine learning.

RESEARCH

Distributionally Robust Conditional Quantile Prediction with Fixed Design

Meng Qi, Ying Cao, Zuo-Jun (Max) Shen

Management Science, 2021

A Practical End-to-End Inventory Management Model with Deep Learning

Meng Qi, Yuanyuan Shi, Yongzhi Qi,

Chenxin Ma, Rong Yuan, Di Wu, Zuo-Jun (Max) Shen

Forthcoming in Management Science

Data-Driven Research in Retail Operations –A Review

Meng Qi, Ho-Yin Mak, Zuo-Jun (Max) Shen

Naval Research Logistics, 2020

Urban Courier: Operational Innovation and Data-driven Coverage-and-Pricing

Mengxin Wang, Meng Qi, Junyu Cao, Zuo-Jun(Max) Shen

Major Revision in Operations Research

Smart Feasibility Pump: Reinforcement Learning for Mixed Integer Programming

Meng Qi, Mengxin Wang*, Zuo-Jun (Max) Shen*

Preprint

Learning Newsvendor Problem with Intertemporal Dependence and Moderate Non-stationarities

Meng Qi, Zuo-Jun (Max) Shen, Zeyu Zheng

Preprint

An Integrated Conditional Estimation-Optimization Framework

Paul Grigas, Meng Qi, Zuo-Jun (Max) Shen

Working Paper

Data-Driven Nonparametric Product Design

Mengxin Wang, Meng Qi, Zuo-Jun (Max) Shen

Working Paper

Distributionally Robust MDP with an Online Updated Ambiguity Set

Meng Qi, Shuo Sun, Zuo-Jun (Max) Shen

Working Paper

End-to-End Deep Learning for Inventory Management with Fixed Ordering Cost and its Theoretical Analysis

Mo Liu, Meng Qi, Zuo-Jun (Max) Shen

Working Paper

HONORS AND AWARDS

- Graduate Remote Instruction Innovation Fellows (2020, UC Berkeley)
- MOR& Grassi Fellowship (2020, IEOR Department, UC Berkeley)
- Honorable Mention, POMS-HK Best Student Paper Competition
- Department Fellowship (2016, IEOR Department, UC Berkeley)
- Scholarship of Excellent Academic Performance (2014, Physics Department, Tsinghua University)
- First Prize in Chinese Physics Olympics (2011)

TEACHING EXPERIENCES

Instructor: IEOR 253/CEE 258 Supply Chain and Logistics Management
2021 Spring.

Teaching evaluation(2021 Spring) : IEOR 253 4.75/5.00 CEE 258 5.00/5.00

Co-Instructor: IEOR 253/CEE 258 Supply Chain and Logistics Management
2020 Spring. Under the supervision of leading instructor Prof. Zuo-Jun (Max) Shen

Graduate Student Instructor: IEOR 142 Introduction to Machine Learning and Data Analytics
2017 Fall & 2018 Fall, Instructor: Prof. Paul Grigas

Graduate Student Instructor: IEOR 242 Applications in Data Analysis
2018 Spring, Instructor: Prof. Paul Grigas

INDUSTRY EXPERIENCE

Research Scientist Intern at Amazon

May - August 2021

Reinforcement learning methods for dual-sourcing.

R&D Intern at JD.com Silicon Valley Research Center

June - August 2018

Developed a practical end-to-end inventory management model empowered by deep learning. This model has been implemented in JD.com's logistics system since 2020. It is currently responsible for the replenishment decisions for 7000+ SKUs and the number is expanding.

INVITED TALKS

Learning Newsvendor Problem with Intertemporal Dependence and Moderate Non-stationarities

- POMS Annual Meeting, 2021

An Integrated Conditional Estimation-Optimization Framework

- INFORMS Annual Meeting, 2020

Distributionally Robust Conditional Quantile Prediction with Fixed Design

- Berkeley-Columbia Meeting in Engineering and Statistic, 2020
- POMS-HK best student paper competition, 2020
- INFORMS Annual Meeting, 2019, 2020

- POMS Annual Meeting, 2019

A Practical End-to-End Inventory Management Model with Deep Learning

- MIT MIMO Student Research Form
<https://mimo.mit.edu/student-research-forum/>
- INFORMS Annual Meeting, 2019

SERVICES

- Organizer, Student Summer Seminar Series, IEOR Department, UC Berkeley, Summer 2019.
- Reviewer, *Management Science* and *Manufacturing & Service Operations Management*.
- Session Chair, INFORMS Annual Meeting, 2020 & 2021.