Selene Mengxin Wang

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Employment

The University of Texas at Dallas Richardson, TX Naveen Jindal School of Management Assistant Professor of Operations Management Aug 2023 - Present Uber Technologies, Inc. San Fransisco, CA Data Science Intern June 2020 - Aug 2020 Education University of California, Berkeley Berkeley, CA Ph.D. in Industrial Engineering and Operations Research May 2023 Minor in Statistics and Machine Learning Advisor: Prof. Zuo-Jun (Max) Shen University of California, Berkeley Berkeley, CA M.S. in Industrial Engineering and Operations Research May 2018 Tsinghua University Beijing, China

Research Interests

Machine Learning; OM-Marketing Interface; Choice Modeling; Revenue Management; Digital Platforms; Generative AI

June 2017

Papers Under Review or Revision

- "Large Language Models for Market Research: A Data-augmentation Approach," M. Wang, D. J. Zhang, and H. Zhang, under review at Marketing Science.
 - Sponsored by OpenAI's Researcher Access Program

B.Eng. in Industrial Engineering (Summa Cum Laude)

- Preliminary version accepted at the NeurIPS SFLLM Workshop, 2024
- "A Learning and Optimization Framework for Personalized Product Design," M. Wang, M. Qi, and Z. M. Shen, under revision at **Management Science**.
- "Urban Courier: Operational Innovation and Data-driven Coverage-and-Pricing," M. Wang, M. Qi, J. Cao, and Z. M. Shen, under revision at Manufacturing & Service Operations Management.

Journal Publications

- "Optimizing Offline Product Design and Online Assortment Policy: Measuring the Relative Impact of Each Decision," M. Wang, H. Zhang, P. Rusmevichientong, and Z. M. Shen, **Management Science**, 2024.
 - **Finalist**, Jeff McGill Student Paper Award, 2022
- "Content Promotion for Online Content Platforms with Diffusion Effect," Y. Lin, M. Wang, H. Zhang, R. Zhang, and Z. M. Shen, Manufacturing & Service Operations Management, 2024.
 - Finalists, Minority Issues Forum Paper Competition, 2024
 - Second Place, OR/MS Tomorrow Mini-poster Competition, 2022
 - Winner, Best Student Paper of Social Media Analytics, 2022 (Primary Awardee: Yunduan Lin)
- "Modeling and Analysis of the Waiting Time of Rapid Response Process in Acute Care," N. Chen, M. Wang, X. Xie, L. Zheng, and C.H. Swartz, **IEEE Robotics and Automation Letters**, 2018.

Books, Conference and Workshops

- "A Simple Test of Expected Utility Theory with GPT," M. Wang, NeurIPS 2023 SoLaR Workshop, Spotlight, 2023.
- "Online Retailing Inventory Management," M. Wang and Z. M. Shen, Invited book chapter for Research Handbook on Inventory Management, 2023.
- "Smart Feasibility Pump: Reinforcement Learning for (Mixed) Integer Programming," M. Wang, M. Qi, and Z. M. Shen, ICML 2021 RL for Real Life Workshop, Spotlight, 2021.

Presentations and Talks

- "Large Language Models for Market Research: A Data-augmentation Approach"
 - MIT IDE Seminar (2025, scheduled), Bass FORMS Conference (2025, scheduled), POMS Annual Conference (2025, scheduled), INFORMS Annual Meeting (2024), INFORMS MSOM Conference (2024)
- "A Learning and Optimization Framework for Personalized Product Design"
 - INFORMS RMP Section Conference (2024), POMS Annual Conference (2024), INFORMS Annual Meeting (2023), POMS Annual Conference (2023)
- "Optimizing Offline Product Design and Online Assortment Policy: Measuring the Relative Impact of Each Decision"
 - POMS Annual Conference (2022), INFORMS RMP Section Conference (2022)
- "Urban Courier: Operational Innovation And Data-driven Coverage-and-pricing"
 - ISTDM (2021), INFORMS Annual Meeting (2020), INFORMS Annual Meeting (2019)

Teaching

Instructor	UT Dallas
OPRE 6304: Operations Analytics	Spring 2024, Fall 2024
OPRE 3310: Supply Chain and Operations Management	Fall 2023, Fall 2024

UC Berkelev Graduate Student Instructor and Co-instructor IEOR 253/CEE 258: Supply Chain and Logistics Management *Spring 2021* IEOR 242: Applications in Data Analytics Spring 2019, Fall 2019, Fall 2020

Services

Ad-hoc Reviewer

Journal: Management Science (MS), Manufacturing & Service Operations Management (MSOM), Production and Operations Management (POM)

Conference: 2024 MSOM Sustainable Operations SIG conference, NeurIPS 2022 Workshop on RL for Real Life, NeurIPS 2022 Workshop on Progress and Challenges in Building Trustworthy Embodied AI

Professional Services

Session co-chair, "Efficient Learning Methods and Revenue Management Applications", INFORMS, 2024 Session co-chair, "Machine Learning and Analytics for Revenue Management", POMS, 2024 Member, Ph.D. Admissions Committee for the OM Area, JSOM, UT Dallas, 2023 Session co-chair, "Innovation and algorithm advances in online marketplace", INFORMS, 2022

Honors and Awards

IEOR Faculty Fellowship	2022
Teaching Effectiveness Award	2022
Outstanding Graduate Student Instructor Award	2021
Graduate Remote Instruction Innovation Fellowship	2021
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

Computing

Python, R, Gurobi, Tensorflow, PyTorch