JIALIN LI

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EDUCATION & CURRENT POSITION

Department of Math & Statistics, University of Massachusetts, Amherst 2024 - Present
Visiting Assistant Professor

Rotman School of Management, University of Toronto 2021 - 2024
Postdoctoral Research Fellow

University of Maryland, Collage Park 2016 - 2021
Ph.D., Applied Mathematics & Statistics, and Scientific Computation

Nankai University 2012 - 2016
B. S., Statistics

RESEARCH INTERESTS

- Uncertainty quantification, stochastic optimization, statistical learning
- Applications with the theme of social good: privacy regulation, medical experimental design

PUBLICATIONS

- Jialin Li, and Ilya O. Ryzhov (2024), Moderate deviations inequalities for Gaussian process regression. *Journal of Applied Probability* 61(1): 172-197. Link
- Jialin Li, and Ilya O. Ryzhov (2022), Convergence rates of epsilon-greedy global optimization under radial basis function interpolation. *Stochastic Systems* 13(1): 59-92. Link

WORKING PAPERS

- Ningyuan Chen, Ming Hu, Jialin Li, and Sheng Liu, Data privacy in pricing: Estimation bias and implications. To be submitted to Manufacturing & Service Operations Management. Link

WORK IN PROGRESS

- Ningyuan Chen, Ming Hu, Jialin Li, and Sheng Liu, Incentivizing greedy customers to explore.
- Furong Huang, Jialin Li, and Xuchen You, Guaranteed simultaneous asymmetric tensor decomposition via alternating subspace iteration. Available on arXiv. Link

PRESENTATIONS

- "Data Privacy in Pricing: Estimation Bias and Implications," Rotman TD Management Data and Analytics Lab Grant Research Roundtable, 2024
- "Data Privacy in Pricing: Estimation Bias and Implications," INFORMS Annual Meeting, Phoenix, 2023

- "Data Privacy in Pricing: Estimation Bias and Implications," INFORMS Manufacturing and Service Operations Management Conference, Montreal, 2023
- "Pricing Under Privacy Protection," INFORMS Annual Meeting, Indianapolis, 2022
- "Incentivizing Myopic Customers to Explore," CORS/INFORMS International Conference, Vancouver, 2022
- "Moderate Deviations Inequalities for Gaussian Process Regression," INFORMS Annual Meeting, Virtual, 2021
- "Epsilon-greedy Global Optimization Under Radial Basis Function Interpolation," Rotman Young Scholar Seminar, Virtual, 2021
- "Convergence Rates of Global Optimization Under Randomized Sampling," INFORMS Annual Meeting, Seattle, Washington, 2019

INDUSTRY EXPERIENCE

Data Scientist Intern, Google June - Aug. 2021

· Improved the performance of the AB test model for analyzing the heterogeneous impact of launched features on the advertisement revenue or impressions of YouTube creator's channels

· Proposed score-based methods for model selection based on real experiment data

Quantitative Intern, Wells Fargo July - Aug. 2020

· Audited several asset-pricing models and reviewed technique reports on model development, model parameter calibration, model validation and performance monitoring plan

· Completed Quantitative Technical Report to provide comments and suggestions for model development and model validation teams

FUNDING & AWARDS

- TD Management Data and Analytics Lab Research Grant (4000CAD), Rotman School of Management, 2023
- New Pilot Postdoc Funding (2000CAD), Rotman School of Management, 2022
- Graduate Student Summer Research Fellowship (5000USD), University of Maryland, 2019

TEACHING EXPERIENCE

Course Instructor, University of Massachusetts, Amherst

· Statistics I (Undergraduate, Fall 2024)

Course Instructor, University of Maryland, College Park

· Introduction to Math Modeling and Probability (Undergraduate, Spring 2017)

Teaching Assistant, University of Maryland, College Park

- Undergraduate Course Discussion Session Instructor (to give lectures and lead Q&A discussions in the complementary sessions for regular course sessions): Linear Algebra (Spring 2021), Applied Probability and Statistics (Spring & Fall 2020), Calculus III (Fall 2018), Linear Algebra for Scientists and Engineers (Spring 2018, Fall 2019), Calculus II (Fall 2017)
- PhD Course Grader: Stochastic Optimization (Spring 2020), Stochastic Process (Spring 2019), Linear Model (Spring 2019)

ACADEMIC SERVICE

Ad-Hoc Reviewer

- Operations Research (OR), Operations Research Letters (ORL), Winter Simulation Conference (WSC), International Conference on Machine Learning (ICML), International Joint Conference on Artificial Intelligence (IJCAI), European Conference on Artificial Intelligence (ECAI)