Luofeng Liao

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Education

Columbia University	Ph.D. candidate in operations research	9/2021-present
University of Chicago	M.S. in Statistics	9/2019-1/2021
Fudan University	B.S. in Computer Science, Shanghai, CN (rank 2/41)	9/2015-6/2019

Research Papers By Area

Statistics for Auction Markets

Working paper	Parametric Estimation of First-Price Auction Pacing Equilibrium. L. Liao, X. Wu, C. Kroer.
Preprint	Bootstrapping First-Price Auction Pacing Equilibrium. L. Liao, C. Kroer.
Preprint	Interference among First-Price Auction Equilibria: A Bias and Variance Analysis. L. Liao, C. Kroer, et al.
ICML 2023	Statistical Inference and A/B Testing for First-Price Auction Equilibrium. L. Liao, C. Kroer.

Fairness

AAAI 2024	Greedy-Based Online Fair Allocation with Adversarial Input. Z. Yang, L. Liao, C. Kroer.
ICLR 2023	Statistical Inference for Fisher Market Equilibrium. L. Liao, Y. Gao, C. Kroer.
NeurIPS 2022	Nonstationary Dual Averaging and Fair Online Allocation. L. Liao, Y. Gao, C. Kroer.

Causal Inference, Reinforcement Learning, Optimization

Machine Learning	Local AdaGrad-Type Algorithm for Stochastic Minimax Problems. L. Liao, et al.
Submitted to JMLR	Instrumental Variable Value Iteration for Causal Offline Reinforcement Learning. L. Liao*, Z. Fu*, et al.
NeurIPS 2020	Provably Efficient Neural Estimation of Structural Equation Model. L. Liao, et al.

Internships And Software Projects

Machine Learning SWE, Meta   NYC, US, 2024 summer
Summer Associate Intern, Goldman Sachs (Pandas, Numpy)   NYC, US, 06/2023-08/2023
Developed statistical tests for data augmentation and variance reduction for financial time series; by learning internal scripting language, protopyed product in four weeks and deployed to production in seven weeks..
Research Scientist Intern, JD.com Inc. (Python)   Beijing, CN, 03/2021-08/2021
Designed a federated algorithm for efficient GAN training, paper accepted by *Machine Learning* as first author
Quality Assurance Engineer Intern, Splunk Inc. (Python)   Shanghai, CN, 2019
Developer, [Data-driven Principal Component Analysis](#), (C++, R, Travis CI)   2019
Sponsored by Google Summer of Code 2019
Developer, [GPU-accelerated Bayesian Regression](#), (CUDA C, Matlab)   2018

Professional Services

Reviewer, AISTATS, NeurIPS, ICML, ICLR, ACM Economics & Computation
Accepted presentation, TTIC Workshop on New Models in Online Decision Making for Real-World Applications, Chicago, 7/2022
Accepted presentation, Columbia Workshop on Fairness in Operations and AI, New York, 11/2023
Invited talk, A/B Experimentation in Market Equilibria, hosted by Meta Core Data Science, online, 03/2023
Invited talk, 2023 INFORMS, Revenue Management and Pricing section, Phoenix, 10/2023
Accepted presentation, Stanford Dept. of Management Science & Engineering Rising Stars Workshop, Stanford, 04/2024
Invited talk, 2024 INFORMS, A/B Tests and Experiment Design section, Seattle, 10/2024

Skills

Languages and Dialects: Mandarin and Cantonese (native), English (fluent)
Programming Languages and Tools: Python, SQL, R, Matlab, C++, Linux shell, Latex, git, vim