Fengshi Niu

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EDUCATION

University of California, Berkeley 8/2015-8/2021
- **Ph.D. in Economics**
- **M.A. in Statistics**

Tsinghua University 8/2011-6/2015
- **B.A. in Economics and Finance**
  Beijing Outstanding Graduate

PROFESSIONAL EXPERIENCE

Google, Data Scientist 8/2022–present
- Developing and practicing ad measurement science for businesses.
- Measured ad effectiveness and incrementality, and optimized data-driven conversion attribution by designing and conducting large-scale randomized experiments, and developing innovative causal inference and machine learning methods. My work answered foundational business questions for Google and advertisers, informed sales and product strategy, and enhanced ad serving and reporting.

Stanford Graduate School of Business - Marketing, Postdoctoral Scholar 8/2021–7/2022
- Developed statistical methods for ad measurement

Microsoft Research - Office of the Chief Economist, Research Intern 5/2021–8/2021
- Developed differentially private and interpretable algorithms for heterogeneous treatment effect estimation

Facebook - Core Data Science, Research Intern 5/2019–8/2019
- Optimized offline evaluation of ads ranking by utilizing both experimental data and observational data
- Improved the correlation between offline estimated metric lift and that estimated using online experiment by 11%

University of California - Berkeley, Graduate Student Instructor 8/2017–5/2019
- Taught weekly discussion sections, held office hours, designed problem sets, and graded for the following courses: Graduate Econometrics (Econ 240A, 240B), Graduate Game Theory (Econ 201B)

RESEARCH INTERESTS

Econometric Theory, Causal Inference, Data Privacy, Digital Marketing

PUBLICATIONS

1. **Auction Throttling and Causal Inference of Online Advertising Effects**, with George Gui and Harikesh Nair, *ACM conference on Economics and Computation (EC)*, 2022.
2. **Kernel Density Estimation for Undirected Dyadic Data**, with Bryan Graham and James Powell, Forthcoming, *Journal of Econometrics*, 2022.
3. **Differentially Private Estimation of Heterogeneous Causal Effects**, with Harsha Nori, Brian Quistoff, Rich Caruana, Donald Ngwe, Aadharsh Kannan, *Conference on Causal Learning and Reasoning (CLeaR)*, 2022.
4. **Essays on Econometrics of Dyadic Data**, Ph.D. Dissertation, 2021.

WORKING PAPERS

5. **Minimax Risk and Uniform Convergence Rates for Nonparametric Dyadic Regression**, with Bryan Graham and James Powel, Revise and Resubmit, *Econometric Theory*, 2021.
6. **Optional Intermediaries and Pricing Restraints**, with Alex White and Chang Liu, Revise and Resubmit, *Journal of Economics & Management Strategy*, 2021.

PRESENTATIONS

Error Components Models for Dyadic Data
- Conference in Honor of James L. Powell, Berkeley, CA 4/2022

Differentially Private Estimation of Heterogeneous Causal Effects
- Conference on Causal Learning and Reasoning (CLeaR), Eureka, CA 4/2022

Auction Throttling and Causal Inference of Online Advertising Effects
- INFORMS Annual Meeting, Virtual 10/2021

Minimax Risk and Uniform Convergence Rates for Nonparametric Dyadic Regression
- Berkeley Econometrics Seminar, UC Berkeley 12/2020

Kernel Density Estimation for Undirected Dyadic Data
- Berkeley-Stanford Econometrics Jamboree, UC Berkeley 11/2019

Optional Intermediaries and Pricing Restraints
- Toulouse Digital Economics Conference, Toulouse School of Economics, France 1/2019

OTHER PROFESSIONAL EXPERIENCE

Reviewer for *Journal of Econometrics* and *Journal of Business & Economic Statistics*

TECHNICAL TOOLS

Python, R, SQL, Stata, bash, git, LaTeX, plotly, scikit-learn, statsmodel, xgboost, Keras, EconML, InterpretML

LANGUAGES

English (fluent), Mandarin (native)

Updated 2024/07/30