

# Fengshi Niu

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## EDUCATION

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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

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Google, Data Scientist

8/2022–present

- Developing and practicing measurement science for Google’s advertising business.
- Designed and implemented cutting-edge incrementality measurement solutions to assess ad effectiveness across the full funnel, for both performance and brand ads.
- Optimized data-driven conversion attribution for more accurate reporting and more efficient automation by designing and conducting large-scale randomized experiments and developing innovative causal inference and machine learning methods.

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

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Econometric Theory, Causal Inference, Data Privacy, Digital Marketing

## PUBLICATIONS

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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

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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

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### 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 (CLearR), 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

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

## TECHNICAL TOOLS

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Python, SQL, R, Stata, bash, git,  $\text{\LaTeX}$ , plotly, scikit-learn, statsmodel, xgboost, Keras, EconML, InterpretML

## LANGUAGES

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English (fluent), Mandarin (native)

Updated 2024/09/10