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Department of Statistics,
390 Jane Stanford Way,
Stanford University,
Stanford, CA 94305-4020.

tsudijon@stanford.edu ✉
tsudijon.github.io 🌐
tsudijon

TIMOTHY SUDIJONO

Education

Ph.D., Statistics, **Stanford University**, 2021 - 2026, expected.
NSF GRFP. Advised by Sourav Chatterjee.

Sc.B., Applied Mathematics, **Brown University**, 2015 - 2019.
Magna Cum Laude, Honors. Advised by Kavita Ramanan.

Experience

Experimentation & Causal Inference Intern, **Netflix**, 2024.
Experimentation Platform.

Portfolio Implementation, Analyst, **AQR Capital Management**, 2019 - 2021.
Long Short Equities.

Research Interests

Statistics: Causal Inference, Empirical Bayes, Neural Networks
Probability: Statistical Mechanics, Markov Chains

Research

* denotes alphabetical ordering or equal contribution.

10. K. Chen*, L. Lei*, **T. Sudijono*** "Compound Decision Problems and Welfare Maximization: A SURE Approach" (2025+). *Work in Progress*

9. **T. Sudijono**, L. Lei, L. Masoero, S. Vijaykumar, G. Imbens, J. McQueen. "Regression Adjustments for Experimental Designs in Two-Sided Marketplaces" (2025). *Work in Progress. Accepted at CODE@MIT 2024*

8. S. Chatterjee*, **T. Sudijono***. "Non-Identifiability distinguishes Neural Networks among Parametric Models" (2025). *Draft Available Upon Request.*

7. **T. Sudijono**, S. Ejdemyr, A. Lal, M. Tingley. "Optimizing Returns to Experimentation Programs" (2024). *Submitted. Accepted at CODE@MIT 2024*
ArXiv

6. S. Chatterjee*,**T. Sudijono***. "Neural Networks Generalize on Low Complexity Data." (2024). *Major Revision, Annals of Statistics.*
ArXiv

5. L. Lei*, **T. Sudijono***. "Synthetic Control Inference via Refined Placebo Tests" (2024). *Submitted. Accepted at CODE@MIT 2023, ACIC 2024, Cal Metrics 2024.*
ArXiv software

4. **T. Sudijono**. "Fluctuation Bounds in the Restricted Solid-on-Solid Model of Surface Growth" (2023). *Random Structures & Algorithms (Accepted).*
ArXiv

3. W. S. Tang*, G. M. da Silva*, H. Kirveslahti, E. Skeens, B. Feng, **T. Sudijono**, K. Yang, S. Mukherjee, B. Rubinstein, L. Crawford. "A Topological Data Analytic Approach for Discovering Biophysical Signatures in Protein Dynamics" (2022). *PLOS Computational Biology.*
BioArXiv

2. B. Wang*, **T. Sudijono***, H. Kirveslahti*, T. Gao, D. M. Boyer, S. Mukherjee, and L. Crawford. "A statistical pipeline for identifying physical features that differentiate classes of 3D shapes" (2021). *Annals of Applied Statistics.*
BioArxiv Journal software

1. **T. Sudijono**. "Stationarity and Ergodicity of Local Dynamics of Interacting Markov Chains on Large Sparse Graphs" (2019). *Undergraduate thesis.*

Grants, Honors, & Awards

NSF GRFP Fellow, 2021-2024
Rohn Truell Premium Prize, 2019 (Top Brown Applied Math Graduate)
Phi Beta Kappa, 2019
Brown University Junior Calculus Exam Prize 2018
Karen T. Romer Undergraduate Teaching and Research Award, 2017
William Lowell Putnam Exam Top 150, 2015

Teaching

As Instructor:

1. Probability Qualifying Exam Coaching, Stanford Summer 2023 & Summer 2025

As TA:

5. Theory of Probability (Graduate) Stanford, Fall 2022, Winter 2023, Winter 2025, Spring 2025.

4. Introduction to Statistics for Engineering and the Sciences, Stanford, Fall 2024.

3. Theory of Statistics II (Graduate), Stanford, Winter 2024.

2. Graduate Probability Department Tutor, Stanford, Spring 2023 & Autumn 2023.

1. Time Series Analysis, Stanford, Fall 2021

Contributed & Invited Talks

3. *Regression Adjustments for Experimental Designs in Two-Sided Marketplaces*
CODE@MIT 2024, Stanford Causal Science Conference, Oct. 2024. Causal Data Science Meeting, November 2024. Stanford Industrial Affiliates Conference, Nov. 2024. Stanford GSB Data Driven Decisions Seminar, Dec. 2024. Netflix Statistics, Methodology, Engineering Seminar, Dec. 2024

2. *Optimizing Returns to Experimentation Programs*
Netflix Statistics, Methodology, Engineering Seminar 2024, CODE@MIT 2024 Slam + Poster Session, Stanford-Berkeley Joint Colloquium 2024 Poster, Microsoft Experimentation Platform Internal Seminar, December 2024

1. *Synthetic Control Inference via Refined Placebo Tests.*
Stanford-Berkeley Causal Panel Data Conference, October 2023. CODE@MIT Slam + Poster Session, Nov. 2023, Stanford Causal Science Conference, Nov. 2023, Stanford GSB Data Driven Decisions Seminar, February 2024. Prof. Art Owen's Stanford Group Meeting, June 2024. Netflix ML and Inference Research Seminar, July 2024. California Econometrics Conference, Sept. 2024. Econometrics at Emory: Causal Inference with Panel Data Conference, April 2025.

Skills

Programming: Python · R

Outreach

Stanford Future Advancers of Science and Technology, Mentor, 2022