

Zijun Gao

CONTACT INFORMATION	390 Serra Mall 225 Sequoia Hall Stanford, CA 94305	zijungao@stanford.edu https://zijungao.github.io
EDUCATION	Stanford University , Stanford, CA, USA Ph.D. Candidate, Statistics, GPA: 4.11/4.00 Sept. 2017 - Present (Expected: Jun. 2022) <ul style="list-style-type: none">• Advisor: Prof. Trevor Hastie• Courses: Theory of Statistics (A⁺/A), Theory of Probability (A⁺/A), Information Theory & Statistics (A⁺), Modern Applied Statistics (A), Optimization (A⁺), Design & Analysis of Algorithms (A⁺) Tsinghua University , Haidian, Beijing, China B.S., Mathematics, GPA: 3.90/4.00 Aug. 2013 - Jul. 2017	
RESEARCH FOCUS	Causal inference, Density estimation, Optimization	
SELECTED AWARD & HONOR	Ric Weiland Fellowship Outstanding Undergraduates in Tsinghua Group gold medal in 4th Romanian Master of Mathematics	Oct. 2020 - Present Jul. 2017 Feb. 2012
PUBLICATION AND PREPRINT	(* stands for alphabetical order) <ul style="list-style-type: none">• Zijun Gao and Trevor Hastie, “LinCDE: Conditional Density Estimation via Lindsey’s Method”, <i>submitted to Journal of Machine Learning Research (JMLR)</i>.<ul style="list-style-type: none">* Developed a conditional density estimator based on tree splitting and Lindsey’s method producing smooth, flexible estimates and performing automatic feature selection.* Aggregated tree estimators through gradient boosting to reduce variance and increase accuracy.• Zijun Gao and Trevor Hastie, “DINA: Estimating Heterogeneous Treatment Effects in Exponential Family and Cox Model”, <i>submitted to Biometrika</i>.<ul style="list-style-type: none">* Proposed the difference in natural parameters (DINA) as the heterogeneous treatment effect estimand for exponential family and Cox model.* Constructed a modularized estimator robust to model misspecification and friendly for computation.• Zijun Gao[*], Zhimei Ren, and Zhengqing Zhou, “Batched Multi-armed Bandits Problem”, <i>Conference on Neural Information Processing Systems (NeurIPS) (Oral, 1%)</i>, Vancouver, Canada, Dec. 2019.<ul style="list-style-type: none">* Analyzed the minimax optimality of multi-armed bandits problem with batched data.* Designed batched successive elimination policy achieving the optimal performance.• Zijun Gao, Trevor Hastie, Robert Tibshirani, “Assessment of Heterogeneous Treatment Effect Estimation Accuracy via Matching”, <i>Statistics in Medicine</i>, Apr. 2021.• Zijun Gao, Yanjun Han, “Minimax Optimal Nonparametric Estimation of Heterogeneous Treatment Effects”, <i>Conference on Neural Information Processing Systems (NeurIPS) (Spotlight, 3%)</i>, Virtual, Dec. 2020.• Richard K. Kim, Zijun Gao, Trevor Hastie, and Detlef Obal, “Effect of Clinical Opioid Shortage on Anesthesiologists’ Prescription Habits: a Retrospective Analysis”, <i>Journal of Clinical Anesthesia</i>, Nov. 2020.• Zijun Gao, Qingyuan Zhao, and Trevor Hastie, “PathGPS: Genotype-Phenotype Analysis through Summary Statistics”, <i>in preparation</i>.	
PROJECT	<ul style="list-style-type: none">• Zijun Gao[*], Yanjun Han, and Zhengqing Zhou, “Distributionally Robust Optimization with Martingale Constraints”.• Siyu Chen, Zijun Gao[*], Yanjun Han, and Ruohan Zhan, “Value-Iteration Method for MDP”.	
PROFESSIONAL ACTIVITY	<ul style="list-style-type: none">• Course assistant for Data Mining and Analysis, Introduction to Time Series Analysis, Applied Multivariate Analysis, Theory of Probability, Introduction to Stochastic Process II.• Reviewer for Neural Information Processing Systems (NeurIPS), International Conference on Learning Representations (ICLR).	
INTERNSHIP	Quantitative Researcher Intern at Citadel Securities, Chicago, IL	Jun. - Aug. 2020