Aditya Ghosh – Curriculum Vitae Last updated: May 14, 2025 CONTACT Email: ghoshadi@stanford.edu Address Computing and Data Science (CoDa) **Phone:** +1 (650) 382 7711 389 Jane Stanford Way, Stanford University DETAILS Webpage: ghoshadi.github.io Stanford, CA 94305 EDUCATION Ph.D. in Statistics, Stanford University GPA 4.13 2022 – present Advised by Stefan Wager (Stanford GSB) & Dominik Rothenhäusler (Stanford Statistics) Masters of Statistics (M.Stat), Indian Statistical Institute, Kolkata 2020 - 2022• Dissertation advisor: Prof. Bodhisattva Sen (Columbia University) • **Specialization:** Theoretical Statistics Bachelor of Statistics (B.Stat), Indian Statistical Institute, Kolkata 2017 - 2020RESEARCH My current research spans causal inference, statistical learning, and optimization. I am working on policy evaluation in dynamical systems (with Stefan Wager), and distribution shift (with Dominik Rothenhäusler). 4. Ghosh, A. & Rothenhäusler, D. (2025). Assumption-robust Causal Inference. arXiv:2505.08729

- 3. Ghosh, A., Imbens, G. & Wager, S. (2025). PLRD: Partially Linear Regression Discontinuity Inference. arXiv:2503.09907 □
- 2. Ghosh, A., Deb, N., Karmakar, B., & Sen, B. (2022+). Efficiency and Robustness of Rosenbaum's Rank-based Estimator in Randomized Experiments. Submitted. ☑
- 1. Ghosh, A. (2019). An asymptotic formula for the Chebyshev theta function. Notes on Number Theory and Discrete Mathematics, 25(4), 1-7. Journal link ♂

I currently help organize the Online Causal Inference Seminar.

## INVITED **TALKS**

- Joint Statistical Meeting, Nashville, Tennessee 2025 **Session:** Regression Discontinuity Designs with Complex Data
- Industrial Affiliates Annual Conference, Stanford University 2024 **Title:** Practical bias-aware inference in regression discontinuity designs: An asymptotic view
- Stanford Causal Science Center Conference, Stanford University Title: Asymptotic bias-aware inference in regression discontinuity designs under higher-order smoothness
- Computational and Methodological Statistics, HTW Berlin, University of Applied Sciences, Berlin, Germany 2023

Title: Efficiency and robustness of Rosenbaum's regression (un)-adjusted rank-based estimator in randomized experiments

- PCM Memorial Lecture, Indian Statistical Institute, Kolkata 2022 **Title:** The synthetic control method in causal inference
- D. Basu Memorial Lecture, Indian Statistical Institute, Kolkata 2021 **Title:** Large low-rank matrix completion
- Online Reading Group on Functional Data Analysis □ 2021 **Title:** Two-sample testing of the equality of mean functions
- Students' Learning Seminar, Indian Statistical Institute, Kolkata 2021 **Title:** Matching estimators in causal inference

	• Stats 302: Qualifying Exam Workshop (Theoretical Statistics).	Summer 20	025
	• Stats 302: Qualifying Exam Workshop (Probability).	Summer 20	024
	As teaching assistant, Stanford University ExploreCourses ♂		
	• Stats 60: Introduction to Statistical Methods: Precalculus.	Spring 20	025
	• Stats 361: Causal Inference.	Winter 20	025
	• Stats 200: Introduction to Theoretical Statistics.	Autumn 20	024
	• Stats 310B/Math 230B: Theory of Probability II.	Winter 20	024
	• Stats 310A/Math 230A: Theory of Probability I.	Autumn 20	023
	• Stats 216: Introduction to Statistical Learning.	Winter 20	023
	Stats 202: Data Mining and Analysis.	Summer 2023, Autumn 20	022
	Other experiences		
	• Trained numerous high school students for mathematical olympiad Indian Statistical Institute, Chennai Mathematical Institute, and other Maintained a black (sheet adjuved as part of the large high	er competitive exams.	
	<ul> <li>Maintained a blog (ghoshadi.wordpress.com) aimed at helping high-school students prepare for Mathematical Olympiads and similar competitions.</li> </ul>		
Awards	Recognitions from the Indian Statistical Institute		
	• ISIAA – J. K. Ghosh Memorial Gold Medal (outstanding performance	e in M.Stat)	023
	• ISIAA – Mrs. M. R. Iyer Memorial Gold Medal (best overall perform	ance in B.Stat)	021
	Nikhilesh Bhattacharyya Memorial Gold Medal (best performance in	n Statistics in B.Stat) 20	021
	Others		
	• Madhava Mathematics Competition, received invitation to a presti	gious event 2019, 20	018
	• Indian National Mathematical Olympiad, earned a certificate of India (awarded to the top 75 INMO participants in the country)	·	. of 016
OTHER PROJECTS	• Inference for Adaptively Sampled Data via REINFORCE with Ivy	Zhang 20	025
	SMARTer Multi-task Fine-tuning of BERT with Disha Ghandwani a	9	024
	Analyzing lower back pain data with Anik Burman and Soham Data		020
	<ul> <li>Age-dependent branching processes with/without immigration with Wribhu Banik and Shouvik Middey</li> </ul>		
	• Finding anomalies in a coal quality data of Coal India Limited with Soham Das and Arjama Das 2020		
	• Typical distance between two randomly selected vertices of a Erdős-Rényi binomial random graph with Sayak Chatterjee 2020		
	• Method of moments in random matrix theory (advisor: Prof. Arij.	it Chakrabarty) 20	019
	• Summer Internship in Cryptology, supported by Microsoft Resea Centre for Cryptology and Security, Indian Statistical Institute, Kolka		ose 019
Language	s { <b>R</b> , Python}, {ᄧᆄ쏬, Markdown, HTML}, {English, Bengali (native), Hi	ndi}	

TEACHING As instructor, Stanford University ExploreCourses ♂