Rajita Chandak

ORFE, Princeton University – June 3, 2024

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Appointments

Bernoulli Instructor Lausanne, Switzerland

Institute of Mathematics, École Polytechnique Fédérale de Lausanne (EPFL)

Madison, Wisconsin

Assistant Professor Department of Statistics, University of Wisconsin-Madison

2026 -

2024-2026

Education

Princeton University Princeton, NJ, USA Ph.D. in Operations Research and Financial Engineering (ORFE) 2019-2024

Advisor: Prof. Matias Cattaneo

Princeton University Princeton, NJ, USA 2019-2021

M.A. in Operations Research and Financial Engineering (ORFE)

Providence, RI, USA **Brown University** 2015-2019

Sc.B. with Honors in Applied Mathematics and Economics Honors Thesis: Energy-aware optimization of scalable load balancing strategies

Advisor: Prof. Kavita Ramanan

Research

Publications....

Convergence rates of oblique regression trees for flexible function libraries

Annals of Statistics 2024, Vol. 52, No. 2, 466-490

with Matias Cattaneo and Jason Klusowski

Boundary adaptive local polynomial conditional density estimators

arxiv:2204.10359

Bernoulli, forthcoming

with Matias Cattaneo, Xinwei Ma and Michael Jansson

1pcde: Local polynomial conditional density estimation and inference

arxiv:2204.10375

with Matias Cattaneo, Xinwei Ma and Michael Jansson

Consistency of the EM algorithm in high dimensions

with Matias Cattaneo and Jason Klusowski

Working Papers.....

Fast convergence of the federated EM algorithm

with Zhixu Tao and Sanjeev Kulkarni

A new variable importance metric for oblique regression trees

Adaptive Mondrian random forests

with Matias Cattaneo, Jason Klusowski and William Underwood

Teaching Experience

Graduate Assistant in Instruction

Princeton, NI

2020-Present

ORFE, Princeton University

ORF 499: Senior Thesis (Spring 2024),

SML 312: Research Projects in Data Science (Fall 2023),

ORF 498: Senior Independent Research Foundations (Fall 2023),

ORF 504: Financial Econometrics (Spring 2023),

ORF 524: Statistical Theory and Methods (Fall 2021, Fall 2022),

ORF 245: Fundamentals of Statistics (Fall 2020, Spring 2021).

Senior Thesis Writer's Group Co-Leader ORFE Department, Princeton University	Princeton, NJ 2020-2023
Mentored 4th year undergraduate students in ORFE with thesis research and writing.	
Undergraduate Teaching Assistant Department of Applied Mathematics, Brown University	Providence, RI 2017 – 2019
APMA1720: Monte Carlo Simulations with Applications to Finance (Spring 2019), MPA2065: Intro. to Data Science for the Masters of Public Affairs program (Spring 2018),	2017 2010
APMA1650: Statistical Inference I (Fall 2017). Awards	
Bernoulli Instructorship	2024 -
École Polytechnique Fédérale de Lausanne (EPFL)	2024 -
School of Engineering and Applied Science Travel Grant Princeton University	2023
Finalist for Graduate Research Fellowship Jane Street	2023
School of Engineering and Applied Science Award for Excellence Princeton University	2022
Software and Programming Skills	
R packages: lpcde Python packages: lpdensity , rddensity Additional programming experience: Matlab, Mathematica, Julia, C++, STATA, Java, J	HTML, CSS
Work Experience	
NSF Research Experience for Undergraduates (REU) Worcester Polytechnic Award DMS 1757685	Institute (WPI), MA 2018
NSF Research Experience for Undergraduates (REU) Award NSF 1559788 California State University	ty (CSU), Chico, CA 2017
Talks and Conferences	
Joint Statistical Meeting	Toronto, CA
Invited speaker, Topic-contributed session on decision trees and random forests	August 2023
Statistical foundations of data science and their applications Princeton University Local organizing committee member	Princeton, NJ May 2023
Jane Street Invited speaker, Graduate Research Fellowship Workshop	New York City, NY April 2023
Symposium for Undergraduates in Mathematical Sciences (SUMS) Invited speaker, hosted at Brown University	Providence, RI 2018, 2019
Joint Mathematics Meeting AMS, MAA	Baltimore, MD 2018, 2019
Women in Mathematics in New England (WIMIN) Smith College	Northampton, MA September 2018
MIST Workshop WPI, Applied and Industrial Mathematics Institute for Secondary Teaching	Worcester, MA July 2018
Peer Review	

 $\label{thm:construction} \textit{Journal of the American Statistical Association, Econometric Theory, Operations Research, Journal of Causal Inference.}$