Rajita Chandak

Institute of Mathematics, EPFL – September 1, 2024 ☑ rajita.chandak@epfl.ch • ⑤ rajitachandak.github.io • in rajitachandak

Appointments

Bernoulli Instructor Lausanne, Vaud, Switzerland

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

2024–2026

Assistant Professor

Madison, WI, USA

Department of Statistics, University of Wisconsin-Madison

starting 2026

Education

Princeton University Princeton, NJ, USA

Ph.D. in Operations Research and Financial Engineering (ORFE) **Dissertation:** Adaptive nonparametric statistical theory and implementation

2019-2024

Advisor: Prof. Matias Cattaneo

Princeton University Princeton, NJ, USA

2019-2021

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

Providence, RI, USA

Sc.B. with Honors in Applied Mathematics and Economics

Honors Thesis: Energy-aware optimization of scalable load balancing strategies

Advisor: Prof. Kavita Ramanan

2015–2019

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

Bernoulli, 2024, Vol. 30, No. 4, 3193-3223

with Matias Cattaneo, Xinwei Ma and Michael Jansson

Preprints

On the convergence of a federated expectation-maximization algorithm arxiv:2408.05819

with Zhixu Tao and Sanjeev Kulkarni

lpcde: 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.....

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, NJ

2020-2024

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. Offered 498/499) starting Fall 2023.	l as a regular course (ORF
Undergraduate Teaching Assistant Department of Applied Mathematics, Brown University APMA1720: Monte Carlo Simulations with Applications to Finance (Spring 2019), MPA2065: Intro. to Data Science for the Masters of Public Affairs program (Spring 2018), APMA1650: Statistical Inference I (Fall 2017).	Providence, RI 2017 – 2019
Honors and Awards	
Invited paper for Annals of Statistics session at Joint Statistical Meeting (JSM) Paper: "Convergence Rates of Oblique Regression Trees for Flexible Function Libraries"	2025
Bernoulli Instructorship École Polytechnique Fédérale de Lausanne (EPFL)	2024 – 2026
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	a, HTML, CSS
Work Experience	
NSF Research Experience for Undergraduates (REU) Worcester Polytechn Award DMS 1757685	ic Institute (WPI), MA 2018
NSF Research Experience for Undergraduates (REU) Award NSF 1559788 California State University	esity (CSU), Chico, CA 2017
Talks and Conferences	
Joint Statistical Meeting Invited speaker, Topic-contributed session on decision trees and random forests	Toronto, CA <i>August</i> 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

Peer Review

Bernoulli, Journal of the American Statistical Association, Econometric Theory, Operations Research, Journal of Causal Inference.