

Rajita Chandak

Institute of Mathematics, EPFL – August 16, 2024

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Appointments

Bernoulli Instructor

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

Lausanne, Vaud, Switzerland

2024–2026

Assistant Professor

Department of Statistics, University of Wisconsin-Madison

Madison, WI, USA

starting 2026

Education

Princeton University

Ph.D. in Operations Research and Financial Engineering (ORFE)

Dissertation: *Adaptive nonparametric statistical theory and implementation*

Advisor: [Prof. Matias Cattaneo](#)

Princeton, NJ, USA

2019–2024

Princeton University

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

Princeton, NJ, USA

2019–2021

Brown University

Sc.B. with Honors in Applied Mathematics and Economics

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

Advisor: [Prof. Kavita Ramanan](#)

Providence, RI, USA

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

with [Zhixu Tao](#) and [Sanjeev Kulkarni](#)

[arxiv:2408.05819](#)

lpcde: Local polynomial conditional density estimation and inference

with [Matias Cattaneo](#), [Xinwei Ma](#) and [Michael Jansson](#)

[arxiv:2204.10375](#)

Working Papers

Consistency of the EM algorithm in high dimensions

with [Matias Cattaneo](#) and [Jason Klusowski](#)

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

ORFE, Princeton University

Princeton, NJ

2020–2024

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 as a regular course (ORF 498/499) starting Fall 2023.

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),

APMA1650: Statistical Inference I (Fall 2017).

Awards

Bernoulli Instructorship

2024 – 2026

École Polytechnique Fédérale de Lausanne (EPFL)

School of Engineering and Applied Science Travel Grant

2023

Princeton University

Finalist for Graduate Research Fellowship

2023

Jane Street

School of Engineering and Applied Science Award for Excellence

2022

Princeton University

Software and Programming Skills

R packages: [lpcde](#)

Python packages: [lpcdensity](#), [rddensity](#)

Additional programming experience: Matlab, Mathematica, Julia, C++, STATA, Java, HTML, CSS

Work Experience

NSF Research Experience for Undergraduates (REU)

Worcester Polytechnic Institute (WPI), MA

Award DMS 1757685

2018

NSF Research Experience for Undergraduates (REU)

California State University (CSU), Chico, CA

Award NSF 1559788

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, NJ

Princeton University

May 2023

Local organizing committee member

Jane Street

New York City, NY

Invited speaker, Graduate Research Fellowship Workshop

April 2023

Symposium for Undergraduates in Mathematical Sciences (SUMS)

Providence, RI

Invited speaker, hosted at Brown University

2018, 2019

Joint Mathematics Meeting

Baltimore, MD

AMS, MAA

2018, 2019

Women in Mathematics in New England (WIMIN)

Northampton, MA

Smith College

September 2018

MIST Workshop

Worcester, MA

WPI, Applied and Industrial Mathematics Institute for Secondary Teaching

July 2018

Peer Review

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