

# Rajita Chandak

ORFE, Princeton University – June 12, 2024

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## Appointments

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### 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

2026–

## Education

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### Princeton University

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

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

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### Publications

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#### 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*, forthcoming

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

[arxiv:2204.10359](#)

### Preprints

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#### 1pcde: Local polynomial conditional density estimation and inference

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

[arxiv:2204.10375](#)

### Working Papers

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#### Consistency of the EM algorithm in high dimensions

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

#### 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

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### Graduate Assistant in Instruction

*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).

Princeton, NJ

2020–Present

### Senior Thesis Writer's Group Co-Leader

ORFE Department, Princeton University

Mentored 4th year undergraduate students in ORFE with thesis research and writing.

Princeton, NJ

2020-2023

### 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

## Awards

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### Bernoulli Instructorship

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

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R packages: [lpcde](#)

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

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

## Work Experience

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### NSF Research Experience for Undergraduates (REU)

Award DMS 1757685

Worcester Polytechnic Institute (WPI), MA

2018

### NSF Research Experience for Undergraduates (REU)

Award NSF 1559788

California State University (CSU), Chico, CA

2017

## Talks and Conferences

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### Joint Statistical Meeting

Invited speaker, Topic-contributed session on decision trees and random forests

Toronto, CA

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

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