

Rajita Chandak

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Education

Princeton University

Ph.D. in Operations Research and Financial Engineering

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

Advisor: [Dr. Matias Cattaneo](#)

Research Interests: Mathematical statistics, theoretical machine learning, causal inference, econometrics.

Princeton, NJ, USA

2019–Present

Princeton University

M.A. in Operations Research and Financial Engineering

Princeton, NJ, USA

2019–2021

Brown University

Sc.B. with Honors in Applied Mathematics-Economics

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

Advisor: [Dr. Kavita Ramanan](#).

Providence, RI, USA

2015–2019

Research

Publications

Convergence Rates of Oblique Regression Trees for Flexible Function Libraries

[Arxiv Preprint](#)

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

Boundary Adaptive Local Polynomial Conditional Density Estimators

[Arxiv Preprint](#)

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

Software

R packages: [lpcde](#)

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

Manuscripts

Undergraduate Honors Thesis

Department for Applied Mathematics

Title: *Energy-aware optimization of scalable load balancing strategies*.

Advisor: [Dr. Kavita Ramanan](#).

Brown University

2018–2019

NSF Research Experience for Undergraduates (REU)

Center for Industrial Mathematics and Statistics, Worcester Polytechnic Institute (WPI)

Advisors: [Dr. Marcel Blais](#) and [Dr. Stephan Sturm](#)

Research sponsored by NSF on financial modelling with industry liaisons Doherty Advisors LLC and State Street Global Services. (Award DMS 1757685)

WPI

2018

NSF Research Experience for Undergraduates (REU)

Math Department, CSU Chico

Advisor: Dr. Ben Nolting.

Research sponsored by NSF on stochastic processes. (Award NSF 1559788)

California State University, Chico

2017

Teaching Experience

Graduate Assistant in Instruction

ORFE Department, Princeton University

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*

Host programming workshops and office hours to support 4th year undergraduate students in the ORFE department with thesis research, development and writing.

Princeton, NJ*2020-Present***Undergraduate Teaching Assistant***Applied Mathematics Department, Brown University*

TA for Dr. Debankur Mukherjee's APMA1720: Monte Carlo Simulations with Applications to Finance (Spring 2019),
TA for Dr. Srikar Prasad's MPA2065: Intro. to Data Science for the Masters of Public Affairs program (Spring 2018),
TA for Dr. Ben Kunsberg's APMA 1650 (Fall 2017).

Providence, RI*2017 – 2019*

Programming Skills

Advanced Proficiency: R, Python, Latex, Matlab, Mathematica

Intermediate Proficiency: C++, STATA, Java, HTML, CSS

Awards

School of Engineering and Applied Science Award for Excellence

2022*Princeton University*

Conferences

Symposium for Undergraduates in Mathematical Sciences (SUMS)

Brown University

Delivered a talk based on undergraduate honors thesis.

Providence, RI*March 2019*

Joint Mathematics Meeting

AMS, MAA

Presented research work done during REU at CSU, Chico in 2018. Presented results of research done during REU at WPI in 2019.

Baltimore, MD*2018, 2019*

Women in Mathematics in New England (WIMIN)

Smith College

Delivered a talk based on research done during REU at WPI.

Northampton, MA*September 2018*

MIST Workshop

WPI, Applied and Industrial Mathematics Institute for Secondary Teaching

Delivered a talk based on research done during REU at WPI.

Worcester, MA*July 2018*

Symposium for Undergraduates in Mathematical Sciences (SUMS)

Brown University

Delivered a talk based on research done during REU at CSU, Chico.

Providence, RI*March 2018*

Languages

English: Native Proficiency

Hindi: Native Proficiency