

Rajita Chandak

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Education

Princeton University

PhD in Operations Research and Financial Engineering

Graduate student in the Operations Research and Financial Engineering (ORFE) Department.

Advisor: Matias Cattaneo

Princeton, NJ, USA

2019–Present

Brown University

Sc.B. with Honors in Applied Mathematics-Economics

Relevant coursework: Computational Probability and Statistics, Real Analysis, Operations Research (Probabilistic Models), Econometrics, Behavioral Economics, Theory of General Equilibrium, Labor Economics, Honors Linear Algebra, Partial and Ordinary Differential Equations, Honors Statistics and Inference

Providence, RI, USA

2015–2019

London School of Economics

Certificate

The Political Economy of Public Policy (Session 2) and Introduction to Finance (Session 3)

London, England

2016

Oakridge International School (Newton Campus)

International Baccalaureate Diploma

Relevant coursework: Math HL, Physics HL, Chemistry HL, Economics SL, English SL, Hindi B SL

Hyderabad, India

2004–2015

Experience

Research Experience

Honors Thesis

Department for Applied Mathematics, Brown University

Researched *energy-aware optimization of scalable load balancing strategies* under guidance of [Dr. Kavita Ramanan](#). My Thesis focused on understanding stationary behaviour of TABS scheme under general service time distribution and identifying parameters to achieve greater efficiency and lower energy costs. I also explored long term stationary behaviour of the system under the TABS scheme through limit theorems.

Providence, RI

2018-2019

Research Experience for Undergraduates (REU) at WPI

Center for Industrial Mathematics and Statistics, Worcester Polytechnic Institute

8-week summer research sponsored by NSF on financial modelling under the mentorship of [Dr. Marcel Blais](#) and [Dr. Stephan Sturm](#) and industry liaisons Doherty Advisors LLC and State Street Global Services. (Award DMS-1757685)

Doherty Advisors LLC Project: Created options pricing model for VIX and TYVIX with real-time data scraping from Bloomberg Terminal for investment strategies. Programming in Python and R.

State Street Project: Worked on methodology to automate trade exception processing with the use of machine learning tools. All programming done in Python.

Worcester, MA

2018

Research Experience for Undergraduates (REU) at CSU

California State University, Chico

7-week intensive research sponsored by NSF on Stochastic Processes with Dr. Ben Nolting at California State University. Developed Spatial Point Analysis of racially segregated communities and environmental justice factors using 2010 Census and EPA data. (Award NSF 1559788)

Chico, CA

2017

Teaching Experience

Undergraduate Teaching Assistant

Applied Mathematics Department, Brown University

Teaching Assistant for Dr. Ben Kunsberg's APMA 1650 (Statistical Inference I) for Fall 2017 semester.

Teaching Assistant for Dr. Debankur Mukherjee's APMA1720: Monte Carlo Simulations with Applications to Finance.

Providence, RI

Fall 2017, Spring 2019

Course Assistant

Data Science Initiative, Brown University

Providence, RI

Fall 2018

Course Assistant for Dr. Srikar Prasad's MPA2065: Introduction to Data Science and Programming for the Masters of Public Affairs program. Held weekly office hours and helped with Lab assignments in class.

Tutor Leader and Tutoring

Providence, RI

Member of Tutor Advisory Board, Dean of the College, Brown University

2017–2019

Tutored for ECON1110 Intermediate Microeconomics, ECON1210 Macroeconomics and ECON1629 Research Methods courses throughout the academic year. As a Tutor Leader for Economics, I organized monthly check-ins with and provided support to other economics tutors.

Leadership Experience

TEDxBrownU

Providence, RI

President (2017-2019) and Finance Director (2016-2017), Brown University

2017–2019

Led organization of TED Salon Events and annual TEDxBrownU events.

Generation Citizen

Providence, RI

Outreach Director, Brown University

2016–2019

Handling student recruitment, chapter social media, relationships with other student groups and Student Activities Office at Brown and organizing education-related workshops for the Brown community along with providing support to other college volunteers with Generation Citizen@Brown. I also mentor students in Providence public schools on civic action projects. I worked with students at Del Sesto Middle School in Fall 2016 and Spring 2017.

Programming Skills

Advanced Proficiency

Python

LaTeX

R

MATLAB

Mathematica

Intermediate Proficiency

C++

STATA

Java

Conferences

Joint Mathematics Meeting

Baltimore, MD

AMS, MAA

16-19 January, 2019

Presented results of research done during REU at WPI (Summer 2018)

Graduate Research Opportunities for Women

Ann Arbor, MI

University of Michigan

26-28 October, 2018

Women in Mathematics in New England (WIMIN)

Northampton, MA

Smith College

22 September, 2018

Delivered a talk titled *Option Pricing for the VIX using a Risk-Neutral Historical Distribution* based on research done during REU at WPI (Summer 2018)

MIST Workshop

Worcester, MA

WPI, Applied and Industrial Mathematics Institute for Secondary Teaching

16 July, 2018

Delivered a talk titled *Option Pricing for the VIX Using a Risk-Neutral Historical Distribution* based on research done during REU at WPI (Summer 2018)

Symposium for Undergraduates in Mathematical Sciences

Providence, RI

Brown University

17 March, 2018

Delivered a talk titled *Spatial Point Analysis of racially segregated communities and Environmental Justice factors in New York* based on research done during REU at CSU, Chico (Summer 2017).

Joint Mathematics Meeting

San Diego, CA

AMS, MAA

9-13 January, 2018

Presented research work done during REU at CSU, Chico (Summer 2017)

Languages

English: Native Proficiency

Hindi: Native Proficiency