Ronak Mehta

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Google Scholar

EDUCATION

University of Washington — Seattle, WA
Ph.D. in Statistics (*Advisor: Dr. Zaid Harchaoui*) — Fall 2020–Spring 2025 (Expected)

> **Coursework:** Generative Models, Reinforcement Learning, Natural Language Processing, Convex Optimization, Statistical Theory, Measure Theoretic Probability

Johns Hopkins University — Baltimore, MD
M.S.E. in Applied Mathematics & Statistics (*Advisor: Dr. Joshua Vogelstein*) — Fall 2018–Spring 2019

> **Thesis**: "Independence Testing for Multivariate Time Series"
> **Coursework:** Nonlinear Optimization, Matrix Analysis, Bayesian Statistics

Johns Hopkins University — Baltimore, MD
B.S. in Applied Mathematics & Statistics — Fall 2015–Spring 2018

> **Coursework:** Time Series Analysis, Data Structures, Analysis of Algorithms

EXPERIENCE

D.E. Shaw & Co. — New York, NY
Quantitative Analyst Intern in Futures — Summer 2023

> Distributed training of large language models.

Amazon — Menlo Park, CA
Research Scientist Intern in Supply Chain Optimization Technology — Summer 2022

> Deep sequence models and graph neural networks for time series forecasting.
> Work featured in KDD23 Workshop on Deep Learning on Graphs.

Facebook (now Meta) — Menlo Park, CA
Applied Research Science Intern in Enterprise Products — Summer 2021

> Multimodal machine learning, interpretable AI.

Microsoft Research — Redmond, WA
Research Intern in Special Projects — Summer 2020

> Representation learning, continual/lifelong learning.

Johns Hopkins University Department of Biomedical Engineering — Baltimore, MD
Assistant Research Engineer in NeuroData Laboratory — Fall 2017–Spring 2020

> Nonparametric time series methods, uncertainty estimation, continual/lifelong learning.

Goldman Sachs — New York, NY
Software Engineering Intern in Finance & Risk Technology — Summer 2018

> Large-scale data streaming, time series analysis, user-driven software design.

Johns Hopkins University Applied Physics Laboratory — Laurel, MD
Research Intern in Large-Scale Analytics Systems — Summer 2017

> Sentiment analysis, network science.

PUBLICATIONS

[1] A. Li, R. Perry, C. Huynh, T. M. Tomita, **R. Mehta**, J. Arroyo, J. Patsolic, B. Falk, S. Sarma, and J. Vogelstein, "Manifold Oblique Random Forests: Towards Closing the Gap on Convolutional Deep Networks", *SIAM Journal on Mathematics of Data Science*, 2023.

[2] **R. Mehta**, V. Roulet, K. Pillutla, L. Liu, and Z. Harchaoui, "Stochastic Optimization for Spectral Risk Measures", in *AISTATS*, 2023.

[3] S. Yang, M. Wolff, S. Ramasubramanian, V. Quenneville-Belair, **R. Mehta**, and M. Mahoney, "GEANN: Scalable Graph Augmentations for Multi-Horizon Time Series Forecasting", in *KDD 2023 Workshop on Deep Learning on Graphs*, 2023.

TALKS

Stochastic L-Risk Minimization   Toronto, ON
Joint Statistical Meetings (JSM), August 2023.

Stochastic Optimization for Spectral Risk Measures   Seattle, WA
SIAM Conference on Optimization (OP23), June 2023.

Stochastic Ordered Empirical Risk Minimization   Washington, D.C.
Joint Statistical Meetings (JSM), August 2022.

SCHOLARSHIPS AND AWARDS

JSM Student and Early-Career Travel Award   2023
To encourage students and early-career professionals to become engaged in the statistical community through participation in ASA-sponsored professional meetings. The selection of individuals to support is based on both merit and financial need.

JSM Student Paper Award Honorable Mention in Risk Analysis   2023
For exceptional student papers regarding theoretical development or applications of risk analysis, including environmental risk, financial risk, the risk to engineering structures, health risks, risks to defense and national security. Presented at Joint Statistical Meetings (JSM) 2023.

Institute for Foundations of Data Science (IFDS) Scholarship   2022
To promote fundamental research in the mathematical foundations of data science. Supported by the NSF Transdisciplinary Research in Principles of Data Science (TRIPODS) program.

TEACHING

University of Washington

Teaching Assistant - Graduate Courses

Statistical Inference (STAT 513)	Winter 2023
Machine Learning for Big Data (STAT 548 / CSE 547)	Winter 2022
Statistical Machine Learning for Data Scientists (DATA 558)	Spring 2021
Applied Regression (STAT 504)	Winter 2021

Teaching Assistant - Undergraduate Courses

Introduction to Machine Learning (STAT 416 / CSE 416)	Fall 2021
Statistical Methods in Engineering & Science (STAT 390)	Fall 2020

John Hopkins University

Instructor of Record

Mathematical Thinking and Proof-Writing for Engineers (EN.553.109)   Winter 2020

Teaching Assistant - Graduate Courses

Matrix Analysis & Linear Algebra (EN.553.792)   Fall 2019

Teaching Assistant - Undergraduate Courses

Probability & Statistics for the Biological Sciences & Engineering (EN.553.311)   Spring 2019

Probability & Statistics for the Physical Sciences & Engineering (EN.553.310)   Fall 2018

Computational Molecular Medicine (EN.553.450)   Spring 2018