

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, C/C++ Programming, Analysis of Algorithms

WORK 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] L. Liu, **R. Mehta**, S. Pal, and Z. Harchaoui, “The Benefits of Balance: From Information Projections to Variance Reduction”, in *NeurIPS*, 2024.
- [2] **R. Mehta**, J. Diakonikolas, and Z. Harchaoui, “Drago: Primal-Dual Coupled Variance Reduction for Faster Distributionally Robust Optimization”, in *NeurIPS*, 2024.
- [3] **R. Mehta**, V. Roulet, K. Pillutla, and Z. Harchaoui, “Distributionally Robust Optimization with Bias and Variance Reduced Gradients”, in *ICLR*, **Spotlight (top 5% of submissions)**, 2024.
- [4] C. Shen, J. Chung, **R. Mehta**, T. Xu, and V. Joshua T, “Independence Testing for Temporal Data”, *TMLR*, 2024.
- [5] 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.
- [6] **R. Mehta**, V. Roulet, K. Pillutla, L. Liu, and Z. Harchaoui, “Stochastic Optimization for Spectral Risk Measures”, in *AISTATS*, 2023.
- [7] 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 Mining and Learning with Graphs*, 2023.

TEACHING

University of Washington

Teaching Assistant - Graduate Courses

| | |
|---|-------------|
| Statistical Inference (STAT 513) | Winter 2024 |
| 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

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| 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

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| Mathematical Thinking and Proof-Writing for Engineers (EN.553.109) | Winter 2020 |
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Teaching Assistant - Graduate Courses

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| Matrix Analysis & Linear Algebra (EN.553.792) | Fall 2019 |
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Teaching Assistant - Undergraduate Courses

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| 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 |

TALKS

Primal-Dual Algorithms for Faster Distributionally Robust Optimization

UW IFDS Seminar, April 2024

Seattle, WA

Distributionally Robust Optimization with Bias and Variance Reduced Gradients

NSF TRIPODS Workshop 2024

San Diego, CA

INFORMS Annual Meeting 2023

Phoenix, AZ

SIAM PNW Conference 2023

Bellingham, WA

Stochastic Optimization for Spectral Risk Measures

JSM 2023

Toronto, ON

SIAM OPT 2023

Seattle, WA

Stochastic L-Risk Minimization

UW IFDS Seminar, February 2023

Seattle, WA

JSM 2022

Washington, D.C.

SCHOLARSHIPS AND AWARDS

Weil Neurohub and NeuroTEC Travel Award

2023

To fund the development of high-impact projects that leverage imaging, engineering, genomics and molecular therapies, and computation and data analytics; To support collaborative research projects with near-term transformational potential, novel research ideas led by pioneering investigators, and the training of the next generation of clinicians and scientists.

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.