MATTHEW ESMAILI MALLORY

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EDUCATION

PhD in Statistics, Harvard University

2022 - 2027

Awarded National Science Foundation's Graduate Research Fellowship (NSF GRFP)

Advised by Dr. Morgane Austern

MA in Statistics, Harvard University

2022 - 2025

BS in Pure Mathematics, BS in Statistics, University of California, Los Angeles

2018-2022

Honors Collegium, Highest Honors in Mathematics, 4.0 GPA

PUBLICATIONS

Esmaili Mallory, M., Han Huang, K., & Austern, M. (2025). "Universality of High-Dimensional Logistic Regression and a Novel CGMT under Dependence with Applications to Data Augmentation." arXiv:2502.15752. (Accepted to Conference on Learning Theory (COLT) 2025).

Esmaili Mallory, M., Brown, J. & Glickman, M. (2025). "Come Together: Analyzing Popular Songs Through Statistical Embeddings." In Progress. (*To be presented at Joint Statistical Meetings 2025*).

Yu, A., Becquey, C., Halikias, D., **Esmaili Mallory, M.**, & Townsend, A. (2021). "Arbitrary-Depth Universal Approximation Theorems for Operator Neural Networks." arXiv preprint. arXiv:2109.11354.

TEACHING

Teaching Fellow for Stat 149: Generalized Linear Models, Harvard

Jan 2024 - Jun 2024

Teaching Fellow for Stat 104: Quantitative Methods for Economics, Harvard

Aug 2023 - Dec 2023

• Received Harvard Undergraduate Association's Certificate of Special Recognition in teaching.

Teaching Assistant for Math 115A: Linear Algebra, UCLA

Jan 2022 - Mar 2022

Teaching Assistant for Math 115A: Linear Algebra, UCLA

Apr 2021 - Jun 2021

RELEVANT COURSEWORK

Mathematics Real & Complex Analysis, Measure Theory, Group Theory, Ring Theory, Galois Theory,

Linear Algebra, Differential Geometry, Topology, Ordinary & Partial Differential Equations, Random Matrix Theory, Fourier Analysis, Multivariate Differential & Integral Calculus

Statistics Probability Theory, Mathematical Statistics, Generalized Linear Models, Experimental Design,

Data Mining, Computational Statistics, Theoretical Machine Learning, Optimization, Monte Carlo Methods, Reinforcement Learning, Statistical Consulting, R, Python

LEADERSHIP & WORK EXPERIENCE

Statistical Consultant, Harvard

Jan 2024 - present

• Received acknowledgment in publications for assisting Harvard researchers in their statistical analyses.

President, Harvard Iranian Student Association

July 2024 - present

President, UCLA Undergraduate Mathematics Students Association

Mar 2019 - Jun 2022

Undergraduate Researcher, UCLA Mathematics & Statistics Departments

Jan 2021 - Jun 2021

• Researched topological data analysis, algebraic statistics, category theory, and ergodic theory.

Mathematics Docent, Olga Radko Endowed Math Circles

Jul 2020 - Feb 2022

SKILLS

English, Persian, Spanish | R, Python, Julia, LaTeX | Adobe PhotoShop, Illustrator, Premiere Pro, & After Effects