Harris Hardiman-Mostow

Department of Mathematics
University of California, Los Angeles
Los Angeles, CA 90095
Email: hhm@math.ucla.edu
LinkedIn: linkedin.com/in/hardiman-mostow

Education

Ph.D. in Mathematics — Aug 2021-June 2025 (expected)
University of California, Los Angeles — Los Angeles, CA
GPA: 3.9/4.0
Qualifying Exams Passed (2/2): Optimization/Numerical Linear Algebra, Numerical Analysis

B.S. Mathematics, B.S. Mechanical Engineering — May 2021
Tufts University — Medford, MA
Summa Cum Laude (3.96/4.0 GPA)

Experience

Graduate Researcher — June 2022–Present
UCLA Department of Mathematics — Los Angeles, CA

- Researched graph-based semi-supervised and active learning for image classification.
- Invented a novel methodology which backpropagates through the classical label propagation algorithm on graphs, and used this to design neural network architectures that directly incorporate this graph-based semi-supervised learning method.
- Two papers in preparation for submission in Winter 2023.

Graduate Data Science Intern — Summer 2021
The MITRE Corporation — Bedford, MA

- Researched and implemented unsupervised algorithms for multivariate online and batch-based drift detection in time series data.

Undergraduate Researcher — May 2020–May 2021
Tufts University Department of Mathematics — Medford, MA

- Researched and implemented novel machine learning algorithms for signal reconstruction and anomaly detection in sparse spatio-temporal data.
- Submitted algorithm to the NSF Algorithms for Threat Detection Data Challenge, finishing in 4th nationally, including 2nd place in the final round of testing data.

Invited Talks and Presentations

1. O. Esan, **H. Hardiman-Mostow**, M. Mueller, "Anomaly Detection in Sparsely Sampled Traffic Flow," NSF Algorithms for Threat Detection Annual Workshop, University of Washington, Seattle, WA. November 2020.*

*Presenters listed alphabetically.
Note: Presentation took place virtually due to the COVID-19 pandemic.

Grants and Awards

Grants:

- **NSF MENTOR Fellowship** (UCLA, 2021-2022). $34,000. NSF training grant funding early-career PhD students interested in data science.
- **Tufts Summer Scholars Grant** (Tufts, 2020). $5,500. Awarded to student-professor pairs to fund summer research projects.

Honors and Awards:

- **Frederick Melvin Ellis Prize** (Tufts, 2021), awarded to students who have "demonstrated marked athletic versatility, a modest manner, successful academic achievement, and the potential for effective leadership."
- **Ralph S. Kaye Memorial Prize** (Tufts, 2021), awarded to the top mathematics student.
- **Tau Beta Pi** (Tufts, 2019), the national engineering honor society. Membership is awarded to 3rd year undergraduates in the top 1/8th of their class.
- **Dean's List** (Tufts, all semesters)

Teaching

UCLA

- TBD

Tufts University

- Teaching Assistant, ES-2 (Introduction to Computing in Engineering). Spring 2019.

Activities and Leadership

Tufts Men's Varsity Rowing September 2017–May 2021
Team Captain, 2019–May 2021

- First-Team All-Conference, Spring 2021. Conference All-Academic Team, Spring 2019, 2020, 2021.
- Committed 16 hours per week to racing and training, year-round.
- Aided in creating a new team leadership position to coordinate trainings aimed at combating bias.

Skills

- **Programming:** Python (including numpy, pandas, scikit-learn, scipy, matplotlib), PyTorch, MATLAB.
- **Software:** LaTeX, Microsoft Office, Mathematica.