

# 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** August 2021–June 2025 (expected)  
University of California, Los Angeles Los Angeles, CA  
GPA: 3.92/4.0  
Qualifying Exams Passed (3/3): Optimization/Numerical Linear Algebra, Numerical Analysis, Analysis/Abstract Linear Algebra

**M.A. in Mathematics** June 2023  
University of California, Los Angeles Los Angeles, CA  
GPA: 3.92/4.0

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

## EXPERIENCE

---

**Graduate Fellow** September 2023–Present  
**Graduate Researcher** June 2022–August 2023  
UCLA Department of Mathematics Los Angeles, CA

- Supported by the National Science Foundation Graduate Research Fellowship (NSF GRF). Currently researching graph-based semi-supervised learning for image classification and hyperspectral imagery unmixing.
- Invented a methodology which backpropagates through the classical label propagation algorithm on graphs and used this to design novel neural network architectures.
- Paper accepted to SPIE Defense and Sensing 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 2nd place nationally in the final round of testing.

## PUBLICATIONS

---

1. J. Enwright\*, **H. Hardiman-Mostow\***, J. Calder, and A.L. Bertozzi. Deep semi-supervised label propagation with applications to SAR image classification. *SPIE Conference on Defense and Commercial Sensing*, 2023.

\*Co-first authors

## INVITED TALKS AND PRESENTATIONS

---

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

\*Presenters listed alphabetically.

## GRANTS AND AWARDS

---

### Grants and Fellowships:

- **NSF Graduate Research Fellowship** (2023-2026). \$149,000. The USA’s oldest fellowship program for graduate students in STEM. Alumni include 42 Nobel laureates and more than 450 members of the National Academy of Sciences.
- **National Defense Science and Engineering Graduate (NDSEG) Fellowship**. \$136,000 (declined). Highly competitive graduate STEM fellowship sponsored by the DoD (acceptance rate of approximately 7%).
- **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 3<sup>rd</sup> year undergraduates in the top 1/8<sup>th</sup> of their class.
- **Dean’s List** (Tufts, all semesters)

## TEACHING

---

### UCLA

Teaching Assistant:

- Math 33A (Linear Algebra). Spring 2023.
- Math 33B (Differential Equations). Spring 2023.
- Math 31B (Integration and Infinite Series). Winter 2023.

Student evaluations available upon request.

### Tufts University

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

## LEADERSHIP AND SERVICE

---

### Graduate Representative

September 2022–Present

UCLA Dept. of Mathematics Equity, Diversity, and Inclusion (EDI) Committee

- Coordinates initiatives related to Equity, Diversity, and Inclusion. Current initiatives include reforming the qualifying exam system to improve fairness and implementing a peer mentorship program for first-year graduate students.

### Tufts Men's Varsity Rowing

September 2017–May 2021

**Team Captain**, Sept 2019–May 2021

- First-Team All-Conference, Spring 2021. Conference All-Academic Team, Spring 2019, 2020, 2021.
- Committed 20 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.