

Joseph Martinez

1245 Water Street, Fitchburg, MA
617-961-2158 | cs.martinez22@outlook.com | martinez-ml.github.io

EDUCATION

Dartmouth College	Hanover, NH
<i>Master of Engineering</i>	June 2025
<i>Area of Focus: Computer Engineering and AI</i>	
Amherst College	Amherst, MA
<i>Bachelor of Arts</i>	May 2022
<i>Major: Computer Science</i>	GPA: 3.4

ACADEMIC EXPERIENCE

Dartmouth College Singh Lab	Hanover, NH
<i>Research Assistant</i>	March 2025 - June 2025

[Github Repo](#)

- Designed and executed a research plan to explore how model bias differs overtly and covertly for six different languages compared to English.
- Identified and applied different LLMs with varying amounts of post-training and benchmark metrics to compare how post-training impacts overt and covert bias.

Dartmouth College Learning Intelligence Signal Processing (LISP) Lab	Hanover, NH
<i>Research Assistant</i>	September 2024 - January 2025

- Tested the scalability of the GMRA (Geometric Multi-Resolution Analysis) algorithm by running experiments on datasets and embeddings of increasing size.
- Fine-tuned the GMRA algorithm to increase performance metrics, such as accuracy, on diverse graph datasets.

Amherst College Follette Lab	Amherst, MA
<i>Research Assistant</i>	June 2020 – December 2020

- Designed and built the MagAO-X Catalog Tool (Bootstrap, Flask) to validate target-star metadata and export telescope-ready configs, helping observers decide target feasibility and adaptive-optics (AO) setup parameters while preventing mis-tuned instrument settings; saved thousands per observing run.
- Presented at the American Astronomical Society's 237th annual meeting on the tool's end-to-end workflow—target-star data ingestion, unit/format checks, and MagAO-X config generation—showing how it guides target feasibility decisions and avoids AO misconfiguration.
- Presented results of MagAO-X Catalog Tool project at Amherst STEM Summer Research Poster Session.

Amherst College Computer Science Department	Amherst, MA
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Peer Tutoring Fellow

September 2020 – December 2021

- Nominated by the Computer Science Department to individually meet and support students' understanding of course concepts (e.g, Data Structures, Algorithms, Language Syntax) and lab assignments.

Teaching Assistant

August 2020 – December 2020

- Provided conceptual instruction and technical assistance to 20 students in Introduction to Computer Science I class.

PROFESSIONAL EXPERIENCE

WillowTree (formerly Maark)

Boston, MA

Machine Intelligence Task Force

August 2023 - July 2024

- Promoted discussions and use of artificial intelligence at the Marketing Service branch by evaluating and encouraging adoption of GitHub Copilot among developers.
- Coordinated office hours across departments to share updates on the use of new AI tools and facilitate resource-sharing.

Software Engineer

July 2022 - July 2024

- Implemented significant features, such as system outage alerts and new chapter types for presentations, on the Marriott Sales Companion App (MSCA), a web application engaging over 5,000 global enterprise users, using React, JavaScript, and Sequelize.
- Researched and presented the pros and cons of different data visualization libraries to teammates.

Maark

Boston, MA

Summer Software Engineer Intern

June 2021 – August 2021

- Implemented unit and end-to-end testing for the MSCA to improve code quality using Cypress and Jest in JavaScript.
- Improved REST API used by MSCA by adding unit testing, modern authentication, and updated the database using Sequelize and JavaScript.

Winter Software Engineer Intern

January 2021

- Fixed front-end bugs in MSCA using React in JavaScript.
- Created an ETL pipeline for customer data from MSCA in Node.js.

LEADERSHIP & ACTIVITIES

BlueDot Impact

Remote

AI Safety Alignment Course

June 2024 - August 2024

- Facilitated debates and comparisons of novel approaches to mitigating risks from AI systems.

Minds Matter Boston

Boston, MA

Junior Summer Programs Manager

September 2023 - June 2024

- Provided information to a class of 30 students on the application process for summer programs and managed application deadlines for students.

Mentor

November 2022 - June 2024

- Aided high school students in social-emotional skills needed to succeed in college.
- Assisted students in developing vital skills like reading, writing, and test prep for college entry.

STEM Working Group

Amherst, MA

Member

September 2020 – October 2021

- Collaborated with other computer science majors to write a letter aimed at the Amherst College Department of Computer Science, pushing for more diverse and inclusive hiring practices.

La Causa Board Member

Amherst, MA

Activism Chair

September 2018 – May 2019

- Fostered relationships with outside organizations related to LatinX topics by organizing regular seminars with invited speakers.
- Planned events to raise awareness and build community among La Causa members and other student organizations.

PROFESSIONAL DEVELOPMENT

Cientifico Latino

Remote

GSMI 2025 Scholar

August 2024 - Current

- Selected as 1 of the 100 GSMI 2025 scholars (out of 400+ applicants) to receive one-on-one mentorship and guidance from an established research scholar.