

Maya Mau

mm124@wellesley.edu | (609) 721-7890

Princeton Junction, NJ 08550

[github](#) | [website](#)

EDUCATION

Wellesley College

B.A. in Computer Science, Minor in Chemistry

GPA: 3.85

May 2025

RESEARCH EXPERIENCE

The Radhakrishnan Lab | Wellesley College, Wellesley MA

Undergraduate Research Assistant

Advisors: Dr. Mala Radhakrishnan & Dr. Scott Anderson

2023-2025

- Build an accessible, web-based molecular modeling interface (MolVisWeb) for chemistry education from scratch using **Javascript** and **Three.js**
- Evaluate interface using **usability metrics** through focus groups to improve design; increased rotation & loading performance 10x
- Employ computational methods to study and design antimicrobial peptides as alternatives to antibiotics through a workflow involving **Python**, **Linux**, **GROMACS**, Visual Molecular Dynamics (**VMD**), and charge optimization techniques

Broad Institute of Harvard & MIT | Cambridge MA

Summer Research Assistant

Advisors: Dr. Fabio Cunial & Dr. Ryan Lorig-Roach

2024

- Adapt machine learning pipeline using a neural network (**Pytorch**) to accurately predict the validity of structural variant calls by combining features from short- and long-read callers and tuning hyperparameters
- Implement data stratification and functions for data visualization to illustrate model accuracy using **Matplotlib** and **IGV**

Breakthrough Tech AI | MIT, Cambridge MA

Fellow

2023

- Successfully complete online Machine Learning Foundations course hosted by Cornell (**Python**) and create models using **linear & logistic regression**, **K-Nearest Neighbors**, **Random Forests**, and **Neural Networks**
- Worked with MIT & IBM Watson Lab to engineer an open-sourced principled language assistant based on large language models
- Design **convolutional neural network** model for internal Kaggle Competition hosted by NYC Botanical Gardens to classify plant species images with 86% accuracy

HONORS & AWARDS

Sigma Xi Nomination, Wellesley College

2025

Library Student Research Award, Wellesley College, \$500

2023

Three Generations Prize for Writing in the Social Sciences, Wellesley College, \$300

2022

Live Más Scholarship, Taco Bell, \$20,000 total

2021 & 2023

TEACHING EXPERIENCE

Tutor, Wellesley College, Wellesley MA

Spring 2025

- *Course:* Computer Graphics
- *Responsibilities:* Attended lecture each week and host office hours to help students complete assignments.

Tutor & Lab Assistant, Wellesley College, Wellesley MA

2022-2024

- *Course:* Introduction to Computer Programming
- *Responsibilities:* Hosted multiple office hours per week, 1:1 tutoring, and review sessions before exams to help students complete assignments and supplement lecture material. Attended 2-hour lab each week to help students complete lab assignments.

PRESENTATIONS

Oral Presentations

- **Mau, M.**, Ji, S., Evangelinos, E., Kim, A., Uwimbabazi, A. “AMPing Up the Fight: RadLab Takes on Disease Treatment with Computational Methods!” *Wellesley College Ruhlman Conference 2025*.
- **Mau, M.** “Combining Short and Long Reads to Predict SVs” *Broad Institute Data Sciences Platform Meeting 2024*.
- **Mau, M.**, Salmeron, A. “MD Simulations and Continuum Electrostatics” *Wellesley College Fall Research Symposium, Wellesley College 2023*.

Poster Presentations

- **Mau, M.**, Kotsalidis, P., Painter, S., Elmore, D., Anderson, S., Radhakrishnan, M. “Building a Web-Based, Accessible 3D Modeling Tool to Promote Student Understanding of Non-Covalent Interactions in High School Chemistry Classes” *Wellesley College Chemistry Department Poster Session 2024*.
- Chang, S., **Mau, M.**, Salmeron, A., and Radhakrishnan, M. “Progress Towards the Computational Design of Antimicrobial Peptides Based on DesHDAP1” *Wellesley College Summer Research Symposium 2023*.

SKILLS & CERTIFICATIONS

Certifications

- Machine Learning Foundations eCornell certificate of completion

2023

Skills

- **Computer Languages & Packages:** Python (NumPy, Scikit-Learn, Pandas, TensorFlow, Pytorch), Java, JavaScript (React, Node.js, Three.js, jQuery), Typescript, R, C, MATLAB, HTML/CSS
- **Systems & Tools:** Unix/Linux, Git, MongoDB, SQL
- **Graphics:** Figma, FinalCutPro, Canva