

# Mavis Murdock

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## Education

**Mount Holyoke College, South Hadley MA**  
*B.A. Computer Science and Classics – Cum Laude*

May 2022

### Notable Courses

- **Computer Science:** Natural Language Processing (CS 341-NL), Theory of Computation (CS 311), Operating Systems (CS 322)
- **Classics:** Advanced Readings in Latin Literature I *Amherst College* (LATI-441), Apuleius: Cupid & Psyche *UMass Amherst* (LATIN 460), New Testament Greek *Amherst College* (GREE-17)

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## Research

**Research Experience for Undergraduates (REU)**  
*New Mexico Tech, Socorro NM*

June 2021–July 2021

- Conducted research into the efficacy of different machine learning techniques for malware detection
- At the midterm and final REU presentations, summarized research in oral presentations to professors and other undergraduates
- Gave presentation on research to high-schoolers
- Organized final results into a poster and final paper

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## Publications

Eva Domschot, Jeffrey Begaye, Ramyaa Ramyaa, **Mavis Murdock**. *Exploration of Machine Learning Techniques for Botnet Detection* (Manuscript in Progress)

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## Experience

### Projects

#### **Mr. Meter Machine**

January 2020

*Classics Department, Mount Holyoke College*

<https://rosehairtarantula.github.io/Mr-Meter-Machine/>

- Used NodeJS to build a tool for teaching scansion to students in the college's introductory Greek course
- The site allows users to choose lines from the *Iliad* and practice marking syllables as long and short
- Used feedback from students and the professor to improve the program and make it more user-friendly

### Technical

#### **Senior Web Programmer**

January 2019–Present

*Library & Technology Services, Mount Holyoke College, South Hadley MA*

- Helped the web team handle emerging challenges and maintained existing work
  - Updated log scripts for the college's Shibboleth IdP (<https://github.com/mtholyoke/idp-utilities>)
  - Wrote Python script to find the most recent access/modification dates of legacy websites supported by the college
  - Created functionality for the LITS (*Library, Information & Technology Services*) website to display service desk hours
- Worked primarily with HTML, CSS, JavaScript, PHP, and Python

#### **Webmaster**

February 2020–November 2020

*HackHolyoke 2020, South Hadley MA*

<https://rosehairtarantula.github.io/HackHolyoke2020/>

- Built and managed the website for HackHolyoke 2020
- Created and maintained the discord server for the event
- Worked with marketing and graphic design to create a comprehensive and cohesive brand

#### **Student Participant, REBLS Summer Leadership Academy**

July – August 2020

*University of Massachusetts, Amherst*

- Participated in a 6-week program created with a grant from the Melinda Gates Company Pivotal Ventures
- Was part of a cohort of 54 students (selected from over 100 applicants) from diverse backgrounds

- Spent 120 hours in class and on assignments, hearing from 35 speakers from industry and academia
- Spent 20 hours in interactive negotiation exercises and problem solving around case studies

## TA/Mentoring

### Computer Science TA/Grader

*Computer Science Department, Mount Holyoke College, South Hadley MA*

**CS 122** January 2021–May 2021

**CS 322** January 2022–Present

- Held twice-weekly drop-in meetings to help students with concepts and assignments
- Reviewed and ran initial testing on homework assignments

**Computer Science Peer Mentor (CS 150, 151)** September 2021–December 2021

*Computer Science Department, Mount Holyoke College, South Hadley MA*

- Held once-weekly meetings with 8 mentees (helped with course concepts, discussed strategies for managing workload, recommended future courses)
- Handled related administrative tasks (scheduling meetings, checking in with instructors)

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## Honors/Awards

**Leadership Award** 2018–2022

*Mount Holyoke College*

**Patricia Ray '75 Endowed Scholarship (Classics)** 2020–2022

*Mount Holyoke College*

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## Skills

**Programming Languages:** C/C++, Python, Java, JavaScript, PHP, HTML, CSS

**Languages:** Fluent in English, Advanced Latin, Intermediate Ancient Greek, Beginning Spanish and Italian