Alyssa Sawyer

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Education

Harvey Mudd College August 2022 - May 2026

*Bachelor of Science in **Computer Science and Math** Major GPA: 3.8/4.0, Dean's List*

- **Relevant Coursework:** User-Cent. Research Evaluation (TA), Discrete Mathematics (c), Data Structures/Program Development (c), Differential Equations (c), Principles of Computer Science, and Introduction to Computer Science

Sequoia High School August 2018 - June 2022

International Baccalaureate Diploma, Honor Roll (GPA: 4.45/4.0, CA Scholarship Federation Life Member)

College of San Mateo, Cañada College, Skyline College, and Foothill College August 2019 - June 2022

Dual Enrollment Program

- **Relevant Coursework:** Analytical Geometry/Calculus III, Linear Algebra, Differential Equations, Intro to Object-Oriented Program Design, Programming Methods: Java, Python Programming, Introduction to Web Design, Ethical Hacking, JavaScript for Programmers, and Spreadsheets.

Skills

Proficient: Java, Python, C++, Javascript, HTML, CSS, R, LaTeX, Hugo, WordPress, Matplotlib, Pytorch, Arduino, Microsoft Office

Experience

Machine Learning Researcher May 2023 - Present

Claremont McKenna College, advised by Professor Mike Izbicki

- First author of paper at the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining's Data Science Day.
- Finetuning large language models on high quality textbook data to improve performance by 25% on low resource languages.
- Decreased OpenAI API usage cost by 70x in the pipeline to compare baseline model performance compared to our models through calculating the lowest perplexity option of multiple choice quiz questions.

Front-End Web Developer January 2023 - Present

Claremont Graduate University

- Programming an interactive data visualization website for the CGU Cultural Property Disputes Resource using D3.js.
- Providing a resource for lawyers, journalists, and scholars to track information regarding 400+ cases of stolen artifacts.

Project Manager September 2022 - Present

P-ai Claremont Colleges Club

- P-recipe: Managing 4+ students for my computer vision project, training an image classification model using PyTorch.
- P-okemon: Used black box optimization with fmin in Javascript and Pokemon API to reverse engineer information in a battle.

Software Engineer Intern January 2023 - May 2023

Samba TV

- Created a synthetic data set by naturally integrating generating scenes to create 500k+ images using the COCO API.
- Generated logo placement using Python in Blender. These pictures are intended to be released as an open source database.

Computer Science Researcher September 2022 - May 2023

Harvey Mudd College, advised by Professor Lucas Bang

- Developed a wearable device that vibrates northward for a sensory augmentation experiment using Arduino.
- Integrated the device into a Pitzer College philosophy class to improve student learning with an interactive element.

Artificial Intelligence Research Intern August 2021 - March 2022

California State Senate, under Senator Josh Becker

- Summarized and discussed research briefs about AI's effect on labor and tech education to inform State Senate policy.

Projects

Tutoring MGT System | Used pandas and sendemail to automatically send out personal pairing emails for tutoring programs.
Thoughtful Discord Bot | Sends a message from the Shower Thoughts Subreddit with the PRAW module and Discord Dev Tools.
First To Register | Programmed notification system for standardized testing registration opening using selenium and schedule library.

Awards

Harvey S. Mudd Scholar | *Received merit award due to being identified as in the top 2% of the applicant pool.*
Top 4 Lincoln-Douglas Debater in the Country | *Placed in the top 4 at Nationals, top female, after qualifying out of 20,000+.*
300+ Volunteer Hours | *At 30+ organizations through the National Charity League. Received Presidential Bronze Volunteer Award.*