

ALYSSA SAWYER

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PROFESSIONAL EXPERIENCE

Solutions Architect Intern, NVIDIA

May 2025 - August 2025

- Created a full stack tool with Django and Angular to verify data center bill of materials, reducing the time to verification by 5 weeks to 5 seconds and significantly reducing manual errors, saving \$75,000+ per mistake.
- Received top contributor rating.

Solutions Architect Intern, NVIDIA

May 2024 - August 2024

- Created generative AI application with RAG and LangChain to identify the 20 top candidates out of 700+. Caused immediate impact by accelerating the speed of identification of strong candidates by 98%.
- Worked with Tier 1 Cloud Service Providers on data center scale validation projects. Traveled onsite and worked on the largest GPU cluster in the world, collaborating with multiple partners.

Data Scientist, Claremont Graduate University

January 2023 - June 2024

- Programmed an interactive map visualization website for the CGU Cultural Property Disputes Resource using D3.js.
- Provided a resource for lawyers, journalists, and scholars to visually track 400+ cases of stolen artifacts.

Software Engineer Intern, Samba TV

January 2023 - May 2023

- Architected a synthetic data set by naturally integrating ads in scenes to create 500k+ images using the COCO API.
- Designed logo placement algorithm using Blender Python API. Results will be part of an open source database.

EDUCATION

Harvey Mudd College

August 2022 - May 2026

B.S. in **Computer Science and Math**, Harvey S. Mudd Scholar (top 2% of applicants), Dean's List

- **Relevant Coursework:** Data Structures, Algorithms (TA), Computer Vision, Computer Systems, Mathematical Analysis, Discrete Mathematics, Computability/Logic (TA), UX Research (TA), Probability and Statistics, Abstract Algebra, Advanced Linear Algebra, 2D Design, Human Centered Design, Creative Computing Lab.
- **Activities:** Underclassmen Mentor, AI Club Project Director, Society of Women Engineers, Campus Wellness Director.

RESEARCH EXPERIENCE

Artificial Intelligence Researcher, Harvey Mudd College

January 2024 - January 2025

- Developed model that predicts drone operator errors in identifying infrastructure faults with over 80%+ accuracy.
- Authored research paper about testing fairness of an adversarial diffusion model for makeup. Ran dodging and impersonation attack experiment to test methods.

Machine Learning Researcher, Claremont McKenna College

May 2023 - January 2024

- First author of paper at the ACM SIGKDD Conference's Data Science Day. Presented poster to audience of 50+.
- Finetuned large language models on textbook data to improve performance by 25% on low resource languages.
- Lead a decrease of OpenAI API usage cost by 70x in the results pipeline through analyzing perplexity.

LEADERSHIP EXPERIENCE

Team Lead, Ellison Medical Institute

August 2025 - Present

- Managing a team of 5 students to develop an RFID based tracking and optimization algorithm for blood samples.

Founder and President, Code the Change Harvey Mudd College

September 2024 - Present

- Founded a technical tech for good club. Lead development of projects with MIT, The Museum of Science, UNHCR.
- Grew club to 25 regular members, 4 projects. Lead leadership team of 5 in creating regular programming.

SKILLS AND INTERESTS

Skills: Python, Java, C++, JavaScript, Typescript, R, LaTeX, Linux, Git, Natural Language Processing, Generative AI.

Libraries: NumPy, Matplotlib, PyTorch, Pandas, Beautiful Soup, OpenCV, Selenium, Gradio, LangChain, Streamlit.

Interests: Building mechanical keyboards, running, photography, debate coaching, graphic design.