

Mehek Mehra

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Education

Bachelor of Science, Joint Major in Computer Science and Mathematics, High Distinction
Harvey Mudd College, Claremont, CA

Graduation: May 2024
GPA: 3.85

Skills

Python, PyTorch, Java, C++, AWS, Javascript, HTML, CSS, MatLab, Git, Docker, Linux, Spark, Jupyter, SQL, R, Qt, React

Relevant Coursework

Completed: Algorithms; Data Structures and Program Development; Neural Networks; Data Science and Topic Modeling; Operations Research; Computational Biology; Probability and Statistics; Augmented and Virtual Reality; Programming Languages; Experiments in Human Vision; Computer Science and Mathematics Clinic.

Work Experiences

Team Lead and Software Developer, Ispiren Clinic Project, Claremont, CA **September 2023 – May 2024**

- Constructed a system for synthesizing **machine learning** training data from HIPAA-compliant video.
- Led a team of undergraduates by honing **project management** techniques to organize task distribution.
- Implemented and designed a **backend** and **UI** to visualize the machine learning results using **Qt**, **AWS**, and **PyTorch**.

Software Development Engineer Intern, Amazon, Seattle, WA **May 2023 – August 2023**

- Designed and developed a **Python** script that programmatically interacts with **AWS S3**, **Athena (SQL)**, **Spark**, and **QuickSight** to analyze given data sets efficiently to help onboard new clients.
- Developed skills in **Git** source control and **Docker** to deploy and **unit test** a **Cloud Development Kit**.
- Strengthened communication and collaboration skills by doing weekly demonstrations and an organization-wide presentation.
- Practiced **Agile** methods for program development.

Research and Computer Science Projects

Software Developer and Researcher, Pomona College, Claremont, CA **June 2022 – August 2022**

- Designed and implemented new computational tools in **Python** to visualize abstract mathematical groups to aid research.
- Received an Honorable Mention at MathFest for strong critical thinking, presentation, and writing skills in a research poster.

Signal Processing Researcher, Claremont Graduate School, Claremont, CA **February 2022 – June 2022**

- Implemented novel signal processing algorithms in **MatLab** to improve the performance of machine learning tasks on audio data.

Leadership Experiences

Grader and Tutor, Harvey Mudd College, Claremont, CA **August 2021 – May 2024**

- Assisted in developing skills of over 40 students in Algorithms, Logic, Linear Algebra, and Differential Equations.

Dorm President, Harvey Mudd College, Claremont, CA **August 2023 – May 2024**

- Represented a dormitory of 120 students in Student Government and organized events to positively build community.

Advocates for Sexual Assault, Harvey Mudd College, Claremont, CA **May 2023 – May 2024**

- Rebuilt the HMC Advocates by setting goals, contacting Deans and other colleges, and finding volunteers to participate.

Other Experiences

Senior Admissions Intern, Harvey Mudd College, Claremont, CA **August 2023 – April 2024**

- Organized prospective student events by coordinating with student groups and staff.
- Communicated with prospective students by leading information sessions, and interviewing applicants.

BioMakerspace, Harvey Mudd College, Claremont, CA **August 2021 – May 2023**

- Researched **machine learning** for gene building and PCR by collaborating to learn laboratory and computational techniques.