

Ashley Kim

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EDUCATION

Harvey Mudd College | Claremont, CA

Expected May 2026

B.S. in Joint Computer Science and Mathematics, GPA: 3.83

- Relevant Coursework: Algorithms, Data Structures, Computing Practices, Computability and Logic, Discrete, Differential Equations, Systems Engineering, Mechanics, Probability and Statistics

SKILLS

- Python, Java, C++, JavaScript, React, d3.js library, Racket, R, HTML, CSS, 3D Printing, CAD, CAM, SolidWorks

WORK EXPERIENCE

Game Development Research Intern, Polymath Jr REU

June 2024 - September 2024

- Collaborated with Not A Bot to develop educational games using PlayCanvas and JavaScript, targeting elementary-aged students to teach mathematical multiples
- Designed and implemented planet-themed gameplay mechanics, incorporating player movement and randomized level generation to create dynamic learning experience

Physics-Education Research Intern, Harvey Mudd College

May 2023 - December 2023

- Developed five interactive simulation applets to improve student understanding and engagement with Theoretical Mechanics, focusing on Lagrangian and Hamiltonian Mechanics using HTML/CSS/JavaScript and d3.js library
- Student feedback indicated improved comprehension of abstract concepts after integrating applets into HMC's Theoretical Mechanics course (Fall 2023, Fall 2024)

PROJECTS

PrepTime

August 2024

- Co-created a quiz website inspired by Quizlet using React and Node.js
- Led front-end development, implementing flashcards, multi-page navigation, and interactive UI components

MCM Competition: Tennis Player Performance Model

February 2024

- Developed a Python model using pandas package to evaluate tennis player performance by identifying player weaknesses within a game
- Analyzed match data to determine flow indicators for predicting outcomes in subsequent matches

ACTIVITIES

CS Grader and Tutor, Harvey Mudd College

January 2024 - Present

- Lead weekly tutoring sessions, breaking down complex concepts such as assembly language, time complexity, data representation, and list comprehension to enhance student understanding
- Provide detailed, constructive feedback on Python assignments to guide students in improving coding skills

Math and Physics Grader, Harvey Mudd College

August 2023 - Present

- Grade assignments and projects for Single and Multivariable Calculus, Linear Algebra, Differential Equations, and Mechanics for classes of up to 200 students
- Advise students on advanced mathematical topics and problem-solving to strengthen understanding

Secretary, Applied Math Club

August 2023 - Present

- Organized guest speaker series and panels with professionals from biotechnology, operations research, and academia
- Facilitated hands-on workshops using data science tools like R to analyze and model spread of COVID-19

Co-President, Mudders Making a Difference (MMAD)

August 2022 - Present

- Oversee nine service projects, coordinating with five local organizations to ensure efficient resource allocation
- Liaise between MMAD and the Serenity Homes project that provides temporary housing and support for families
- Spearheaded efforts to earn MMAD Harvey Mudd's 2023 Outstanding Student Organization Award