

# Aimee Co

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## Education

*Harvey Mudd College*, Claremont, CA  
Bachelors of Science in Computer Science and Mathematics  
*Pomona College*, Claremont, CA  
*Taipei American School*, Taipei, Taiwan  
IB Diploma

Expected Graduation: May 2026  
Major GPA: 4.0/4.0  
Aug 2022 - May 2024  
May 2022  
GPA: 3.92/4.0

## Skills

*Programming languages*: Python, Java, SQL, JavaScript, C++, HTML, CSS, R, Prolog, Racket, LaTeX  
*Tools*: Git, VSCode, Vim, ReactJS, React Native, NextJS, Excel, Pandas, Numpy, Scikit-Learn, TensorFlow, Keras, Hugging Face, Docker, AWS, Google Cloud, PostgreSQL  
*Languages*: English (native), Mandarin (professional)

## Experience

**Engineering Team Lead, 5C Hack** Sep 2024 - Present  
● Co-leading 4 person team to create dynamic website for 2025 Claremont Colleges Hackathon using ReactJS and deployment through Vercel

**Teaching Assistant - Computing for the Web, Claremont McKenna College** Aug 2024 - Present  
● Assisting students in learning Python, HTML, and CSS to create their own web apps

**Machine Learning and Software Intern, Dasion** May 2024 - Present  
● Developed backend functionalities to enhance the peer review process by integrating and training LLaMA3 and GPT-4o models to automate peer review comments, paper revision, and scoring with justifications  
● Leading a 4 person team to develop an AI-enhanced EMR platform for healthcare providers integrated with the SMART Health system, including CNNs for diagnosis, drug administration, and risk prediction trained on MIMIC III data through BigQuery  
● Represented Dasion at West Coast Symposium for Addictive Disorders to showcase AI-driven healthcare solutions

**Project Head, p-Newspaper, Pomona AI** Feb 2024 - May 2024  
● Led the development of a web app to reduce user bias by delivering personalized news from wide array of news sources by leveraging open-ended user input using ReactJS, Flask, Docker, and Google OAuth for user sign on  
● Implemented TSVector in PostgreSQL to narrow down search results within DB and GPT-4 for interpreting user inputs to curate most relevant results to increase query efficiency  
● Engineered AWS Lambda function with Cloudwatch to scrape news sites at 12 hour intervals and store news in DB

**Lead Frontend Developer, p-Geolocation, Pomona AI** Sep 2023 - Dec 2023  
● Created web app to output a user's location with error range on Google Maps given two pictures of the sun  
● Led front-end web development with ReactJS and Google Maps API to create interactive Google Map with movable marker on a multi-page website

**5C Datathon, 1st place, Claremont Colleges** Oct 2023  
● Collaborated on a 2-person team to win 1st out of 30 teams at the 5C Datathon (Claremont Colleges) sponsored by Google, Bloomberg, and Major League Hacking  
● Highest AUROC score by applying XGBoost on over 600,000 airplane delay data points with Scikit-Learn

## Projects and Research

**Transformers for Drug Development - Case Study for APP13007** Aug 2024 - Present  
● Utilizing DiffDock and SMILES transformer to predict molecular docking of clobetasol propionate, exploring alternate applications beyond ophthalmology

**Spatial Analysis of Segregation and Air Quality** Jun 2024 - Present  
● Co-authoring a paper on segregation indices by analyzing spatial/aspatial segregation patterns using geographic data  
● Applying batch processing to explore correlations between population distribution and air quality

**Lung Cancer Detection CNN** May 2024  
● Developed a CNN using TensorFlow Keras, achieving 0.85 accuracy in detecting lung cancer from histopathology images, with potential to generalize to other cancers.

**Duolingo half-life regression analysis** Feb 2024 - March 2024  
● Implemented the half-life regression model to analyze a dataset of 13 million Duolingo learning sessions to estimate the forgetting curve from user data, enhancing insights into effective language learning strategies

**Business, personal, Hackathon websites** 2023 - 2024  
● Developed a dynamic business website (Musico) with client-side communication using ReactJS and EmailJS.  
● Engineered an interactive interface for Pomona College's room draw system, integrating backend services and Firebase for streamlined user experience, allowing students to pre-select rooms based on draw time, view floor plans, select room/suite-mates on one website

**Activities and Interests:** Lifeguard, Pomona College Orchestra concertmaster, snowboarding, scuba diving, soccer

**Citizenship:** Dual (United States, Taiwan)