

Alison Soong

EECS Undergraduate Student @ MIT

EDUCATION

Massachusetts Institute of Technology | 2023 - 2027

- Candidate for a Bachelor of Science in Electrical Engineering and Computer Science
- Student organizations: MIT Motorsports (Formula SAE), Software Member; HackMIT/TechX, Financial Head and DevOps; Technique, Editor; MIT CodeIt, Mentor; MedLinks

Crystal Springs Uplands School (High School) | 2019 - 2023

- GPA: 4.0 (unweighted), 4.21 (weighted); SAT 1600 (Oct 2021)
- Distinguished Scholar Award (2023); The Cum Laude Society (2022-Present)

RESEARCH

Astrophysics Student Researcher, SSP @ CU Boulder | Jun - Aug 2022

- Wrote paper and developed Python program determining near-earth asteroid orbit
- Results published by the Minor Planet Center of the International Astronomical Union, presented to Southwest Research Institute upon completion of the Summer Science Program

Emergency Preparedness Team Research Intern, NASA SEES | May - Dec 2021

- First author of published abstract presented at American Geophysical Union 2021 Fall Conference
- Programmed a California wildfire vulnerability map and algorithm using Python; analyzed remote sensing data/NASA satellite imagery using Google Earth Engine
- Selective internship with NASA & The Texas Space Grant Consortium in a team of 10 students

WORK EXPERIENCE & LEADERSHIP

Computer Science Intern, Design that Matters | Jan 2024

- Micro-internship during MIT's Independent Activities Period
- Designed/programmed tools for impact analysis (Python), secured nonprofit's records using AWS and Rclone, researched and designed effective graphical user interface for medical device

Software/Controls Robotics Captain, FRC 1868 Space Cookies | 2019 - 2023

- Led software team of 15+ girls (2022 - 2023); created/taught new-member training workshops
- Programmed competition robots using C++; interviewed in all technical judging sessions
- Used GitHub Projects to manage software development
- FIRST Robotics Dean's List Finalist (2022); Software Subteam Director (2020 - 2022)
- Awards: 2x Qualified for FIRST World Championships (2022, 2023), top 1% of teams for auto EPA (2023), Innovation in Control Award (2023); Semifinalists at Championship Curie Division, Silicon Valley Regional, and Canadian Pacific Regional (2023); Finalists at Arizona West Regional (2023)

iOS App Developer, Catapult Homes | Dec 2020 - Mar 2021

- Designed and coded mobile app that streamlines information exchange (pictures, client information) between real estate agents and potential home sellers
- Used Xcode, Swift, and UIKit

PROJECTS & COMMUNITY

Periodic(ally), Visualizing Menstrual Equity | 2023 - Present

- Developing a mobile app and initiative (using Xcode/Swift) to shed light on menstrual equity and period poverty, and to demonstrate period product accessibility
- Integrated NFC technology

Girl Scouts STEM Outreach | 2019 - 2023

- Girl Scout since 1st grade; programmed, showcased, and demoed outreach robots
- Led robotics/programming/electrical engineering workshops for Girl Scouts ages 5-11

iOS App Development, *The Mask Genius* | 2020

- Programmed/published *The Mask Genius*: iOS informational app and game illustrating the effectiveness of masks against airborne viruses
- Published for public download through San Mateo County Health (health department)
- Included in the SF Bay Area Crushing the Curve Campaign (joint SF Bay Area gov't campaign, >5 counties) to promote health and safety during the pandemic

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SKILLS

- Computer Science / Programming
 - Algorithms
 - Proficient in C++, Python, Java
 - Familiar with Swift, Objective C, HTML / CSS, JS (React)
 - iOS App Development (Xcode)
 - Version Control (git & GitHub)
 - Full Stack Development
- Graphic Design (UI / UX)
- Rapid Prototyping / 3D Printing
- Machinery / Woodshop

ACTIVITIES

Crystal Springs Uplands School (High School) | 2019 - 2023

Varsity Girls Soccer, Starting Midfielder (2019-2022); Skyline Division All-League Team, 1st Team Award (2020)

Graphic Design I Visual Arts Departmental Distinction Award (2021)

President, Girls Who Code Club (2021-2023); Founder/President, Computers, Linguistics, Applications, Programming (C.L.A.P.) Club (2021-2023); Vice-President, Women Driving Change Club (2021-2022)

2x AIME Qualifier (2022, 2023); USA Computing Olympiad Silver Contestant (2020); National Merit Winner (2023); Candidate in the 2023 United States Presidential Scholars Program (2023)

OTHER AWARDS

- NCWIT 2x National Honorable Mention (2022, 2023) & Winner for the Bay Area Affiliate of the NCWIT Aspirations in Computing Award (2022)
- Scholastic Art & Writing Awards Silver Key and Honorable Mention for photography (2021)
- Peninsula Photo Contest First Place Youth Moments + 2 Honorable Mentions, exhibited at Palo Alto Art Center (2020)