

# William Cai

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## Education

San Jose State University – Overall GPA: 3.43 Aug. 2019 to Present  
B.S. in Aerospace Engineering

Relevant Coursework: Computer Aided Design for Aerospace Engineering, Programming for Aerospace Engineering, Material Science, Aerostructures, Vector Dynamics, Rigid Body Mechanics, Aerodynamics, Flight Mechanics

## Skills

C, Python, MATLAB/Simulink, HTML, CSS, Javascript, AutoCAD, AutoDesk Inventor, SolidWorks, GrabCAD, Microsoft Office Suite, Google Suite Apps, Logger Pro, Adobe Lightroom, Adobe Photoshop

## Projects

**AIAA Design Build Fly**, San Jose State University Sep. 2023 – Present

- Conducted research on wing profiles contributing to valuable insights to the team’s decision-making process
- Developed a CAD model of a tapered wing using a Dornier-A5 Airfoil in SolidWorks and applied engineering principles to incorporate the design for optimal aerodynamic performance

**Aerodynamics and Composites Team Member** Aug. 2019 – May. 2022  
*Spartan Racing Electric, San Jose CA*

- Worked with a team of three to redesign a cooling system for SRE-5, a fifth iteration FSAE vehicle, using SolidWorks and GrabCAD
- Collaborated with a team of three to design concepts for an intake and outtake for a radiator
- Oversaw development in enhanced composite air and cooling systems

**Astrobee Surface Sampling Payload**, San Jose State University Feb. 2020 – May 2020

- Designed an API using MATLAB that allows a servomotor to control arm, gripper, and cartridge movements for a payload sampler that helps astronauts on the International Space Station
- Allowed for user input to interface with the program

**IQ Autonomous Racing Drone**, San Jose State University Sep. 2019 – Dec. 2019

- Successfully contributed to the design and implementation of bracket mounts, to ensure the secure placement of components for a racing quadcopter
- Utilized AutoDesk Inventor to design two bracket mounts for a microcontroller board and camera, adhering to specific design constraints and guidelines

## Work Experience

**Cashier and Customer Service** Jul. 2023 – Sep. 2023  
*Marukai Market, Cupertino CA*

- Proficient in PLU code memorization, ensuring swift and accurate transaction processing
- Demonstrated excellent communication skills, making calls for store closing and coordinating with the manager
- Maintained a clean and organized checkout area, contributing to a positive customer experience

**Merchandise Associate** Aug. 2019 – Dec. 2019  
*California’s Great America, Santa Clara CA*

- Provided crucial functions such as taking orders, processing transactions, running cash registers, restocking, and taking inventory on the sales floor
- When not serving customers, devoted time to clean up displays and organize the storefront
- Offered promotions and discounts for amusement park rides and merchandise

## Activities and Awards

**Member**, American Institute of Aeronautics and Astronautics (AIAA) Sep. 2019 – Present  
**Recipient**, California Seal of Biliteracy in English and Chinese Jun. 2019  
**Recipient**, AP Scholar Jun. 2019