Andy Cate

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SKILLS

Programming Languages Python (+ NumPy, Pandas, TensorFlow), Node, Java, C++, C, SQL, NoSQL databases, Docker

CAD SolidWorks, Onshape, Altium Designer

General Engineering PCB Design/Assembly, Electrical Testing and Debugging, 3D Printing, TIG Welding, Wood and Metal CNC, Radio Antenna Design and Tuning

EXPERIENCE

Relativity Space, Long Beach CA - *Avionics Hardware Intern*

MAY 2022 - AUGUST 2022

- Worked on motor controller for thrust vector control of launch vehicle
- Designed environmental sensors for future launch vehicle

Astranis Corp, San Francisco CA - *Avionics Hardware Intern*

MAY 2021 - AUGUST 2021

- Designed and built fail-safe valve controller for geosynchronous communications satellite
- Designed electrical test equipment for the same controller

Space Enterprise at Berkeley - *Avionics Lead*

AUGUST 2020 - PRESENT

- Designed first ever fight computer for our team, which flew successfully
- Designed and built second version flight computer, which was used in fourteen liquid engine hotfires
- Implemented a ground station application to control the flight computer over RF and Ethernet
- Lead a team of 10 to support the avionics for a liquid bipropellant rocket

FourthStorm, Berkeley - *Lead Hardware Engineer*

MAY 2019 - August 2021

- Designed and built two PCBs for an ARM-based computer imaging application
- Modified device trees and linux kernel drivers to interface an embedded ARM processor with custom hardware

Synthego Corp, Menlo Park - *Hardware Intern, Robotics R&D Team*

JUNE 2019 - AUGUST 2019

- Designed cell imaging apparatus using high resolution CMOS sensor
- Wrote software to collect and analyze images from cell culture experiments

EDUCATION

UC Berkeley, California - *B.S. in Electrical Engineering and Computer Science   GPA: 3.6*

AUGUST 2020 - JUNE 2024

Leadership Experience

Space Enterprise at Berkeley

- Avionics lead, 2020-2022

FRC Robotics Team 5499

- Software lead 2017 - 2020
- 2017 FIRST Robotics Class of Champions