

Joseph Brown

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SUMMARY

Electrical Engineer focusing in Robotics and Control at UCR. I aim to continuously learn and grow through my experiences and become a better engineer in all disciplines to best advance the projects I work on.

EXPERIENCE

Engineering Intern, Electrical and Systems

June 2022 – September 2022

Second Order Effects

El Segundo, CA

- Debugged and documented various issues on complex PCBAs involving serial buses, voltage regulators, and high frequency analog signals. I reworked feasible fixes to these issues.
- Designed and simulated an ESD protection circuit for high speed data lines to meet high testing standards while layout space constrained.
- Aggregated documentation on dozens of PCBAs for an organized and useful package sent to the client to assist in their ramp up.
- Created an initial hardware fault tree and isolated fault detection lines on a large aerospace project for facilitating a future FMEA/FDIR effort.
- Managed priority, review, lead times, and qualification of Altium components for PCBAs leading up to a critical project review deadline.

CubeSat Director

June 2022 - Present

Director of Public Relations

March 2021 – June 2022

ADCS Lead Engineer

November 2019 – Present

Aerospace Systems @ UCR

Riverside, CA

- Lead the CubeSat team to achieve project goals and to grow as engineers. I manage the project schedule, project spending, and human resourcing on the satellite.
- Lead a team of business and outreach members to work with sponsors, faculty, and community members that support the rest of the organization.
- Designing an STM32 based flight computer, ground station software, and the Attitude Determination and Control System.

Tutor, Math and Physics

Sept 2020 – Present

Freelance

Online

- Clearly convey difficult topics to fit the client's needs and understanding. Tutor math and physics across a wide range of topics through AP Calculus and AP Physics.

FRC Robotics Engineer

August 2015 – June 2019

FIRST FRC Team 589

La Crescenta, CA

EDUCATION

University of California, Riverside

September 2019 – June 2023

Bachelor of Science, Electrical Engineering, GPA: 3.82

Riverside, CA

INTERESTS

Robotics and Controls, ML and RL, Dynamical Systems, Intelligent Systems

Systems Engineering

SKILLS

Python, MatLab/Simulink, C/C++, 3D CAD, LTSpice, Altium, Circuit Design, Excel, Trello, Slack, Agile, Googling

HONORS

Dean's List, F19 - S20, F21 - S22

Chancellor's Honors List, S20, S22

Eagle Scout, April 2018

VOLUNTEERING

FIRST Robotics Mentor | *Leadership, Teaching, Technical Communication*

Aug 2015 - Present