

DANIEL RUSH

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Objective:

A hard-working, self-starting, ambitious engineering student with experience in the field of embedded systems, and firmware development. Also developing passion for applications of System-on-Chip(SoC) processors and FPGA in modern products and computation.

Education:

California State University, Chico (Spring 2018)

- B.S. Mechatronic Engineering
- B.S. Computer Engineering
 - Cumulative GPA: 3.35

Experience:

Associate Firmware Engineer:

Carbon 3D, Redwood City, California (June 2017-Present)

Worked as an intern and Associate Firmware Engineer where I developed an automated unit-testing framework for firmware which allows for hardware tests on the processor and environment they are developed for.

Currently developing motor control firmware. Gained experience in modern software development techniques and practices.

Associate Engineer:

California Mechatronics Center, Chico, California (December 2016-June 2017)

Creating a sensor system which measures drift in multi-story structures. The sensor reports its measurements to a server using the MQTT protocol. There is also local storage using USB-Host.

Engineering Intern:

Zodiac Aerospace, Santa Rosa, California (Summer 2015, and Summer 2016)

Worked as an intern creating new manufacturing processes including automating a spring machine and developing an industrialized carbon fiber injection-molding process and creating new components to expand the parts library.

Relevant Coursework and Skills:

Programming languages and Programs:

- C/C++
- Python
- Real-Time Operating Systems
- Verilog
- Unit-Testing + Gtest
- CAD with GD&T
- Jenkins
- Bazel
- Source Control Management(Git)
- Ansible Scripting

Projects:

- Recreated PONG with a STM32 board, potentiometers, LED matrix, and a LCD Screen.
- Offering 3D printing and 3D modelling services for students of Chico State through the 3D printing club
- Built a mechanical keyboard and had to heavily edit existing firmware for hobbyist keyboards to work with my specific layout.
- Designing new website for 3D Printing club which allows for uploading and queuing jobs as well as automatic pricing and part validation.

Extracurricular Activity:

Chico State 3DP – President and Founder of 3D printing club at CSU Chico. Check out the website chicostate3dp.club!

Chico State Mechanical Keyboard Club - Member and builder of many personal keyboards.

Chico Docker Club - Member learning more about how containers are used in software development

Ukiah High Water Polo Team – Captain of the water polo team at Ukiah High School, and voted most inspirational.