daniel J. Rush

180 Gardens Ave, Ukiah, CA, 95482

rush.daniel95@gmail.com

(707)591-1653

**Objective:**

A hard-working, self-starting, ambitious engineering student with experience in the field of Mechatronics or Computer engineering especially in the field of embedded systems development. Especially interested in the applications of 3D Printing, sustainable technology, and System on Chip coprocessors.

**Education:**

**California State University, Chico (Spring 2018)**

* B.S. Mechatronic Engineering
* B.S. Computer Engineering
  + Cumulative GPA: *3.29*

**Experience:**

**Associate Engineer:**

*California Mechatronics Center,* Chico, California (December 2016-Current)

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, and In-Application Programming (IAP) for firmware updates.

**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:**

* PSpice/Circuit simulation
* Solidworks or Inventor with GD&T
* Lab View
* Logisim
* C/C++
* Python
* Real-Time Operating Systems
* Verilog

**Professional Engineering Experience:**

* Developed process of injection-molding large carbon fiber wiring harnesses for aerospace.
* Developed drop-in components for the injection molding process.
* Automated a manufacturing process which saved a significant amount of labor cost by reducing cycle-time down to one-third of original.
* Wrote a manufacturing specification for the process I designed which thoroughly described the setup and execution of the process.

**Projects:**

* Currently developing a new 3D printer driver board using a PSoC which allows for elements to be moved to hardware logic to improve printing and lessen load on processor.
* 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

**Extracurricular Activity:**

**Chico State 3DP** – President and Founder of 3D printing club at CSU Chico. Check out the website [chicostate3dp.club](file:///F:\MISC\chicostate3dp.club)!

**Volunteer –** Citrus Elementary Taught elementary school students the basics of 3D printing technologies

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