Colin Pollard

Experience

JANUARY 2020 - PRESENT

Systems Engineer / Trident Sensing LLC, Ogden Utah

Summary: Lead a team of developers in creating a novel self-contained Heads Up Display unit. Interfaced with inertial navigation sensors over serial communications and assisted in front-end development of symbology, XPlane SDK integration for real time testing and debugging of complex systems.

Skills Developed: System Architecture Design, Hardware Interfacing (wrote Serial Communications Toolbox).

DECEMBER 2019 - PRESENT

Undergraduate Researcher / University of Utah Robotic Systems Lab

Summary: Research Experience for Undergraduates (REU) program. Currently leading development of the next generation embedded controllers, including firmware development, circuit and PCB design, and data processing. **Skills Developed:** Utilized machine learning to develop and validate regression fit problems, Embedded System Design and Implementation on real time hardware, Firmware Development on PIC and Arduino architecture, Practical testing and test bench development, Signal processing.

AUGUST 2019 - JANUARY 2020

Sandia Labs Engineering Clinic / Sandia Labs / University of Utah

Summary: Assisted in creating and evaluating anti-aliasing filter designs for accelerometer data capture in embedded systems. Simulated filter designs in python and Spice. Evaluated prototype frequency response, power draw, and signal distortion using lab test bench equipment.

Education

IN PROGRESS - MAY 2022

Double Major: BS Electrical Engineering, BS Computer Engineering/University of Utah, Salt Lake City, Utah

Scholarships: David S Hanscom Scholarship, Florian Solzbacher & Xiaoxin Chen scholarship. Lassonde Institute of Entrepreneurship housing scholarship recipient.

Awards: Dean's List recipient (Spring 19, Fall 19, Spring 20).

127 credit hours completed as of Fall 2020, expected graduation in 2022. 3.784 Major GPA, 3.549 Cumulative GPA

Skills

Embedded Development:

Experienced with: Circuit board design in EagleCAD, circuit simulation in LTSpice/PSPICE, practical testing (signal generators, network analyzers (nanoVNA), oscilloscopes, power supplies, etc. Software development in embedded-c, arduino, python.

Relevant courses: ECE3500 Signals and Systems, ECE3300 Transmission Lines and Fundamental EM, Circuits core track (ECE1250, ECE2240, ECE2280), digital circuit design and follow up lab course ECE3700, ECE3710, embedded system design ECE5780.