

Matthew Cox

73 West Street, Hebron, CT 06248 | Matthew.Cox@uconn.edu | (860) 918-3520

Objective

Seeking a full-time position in embedded systems that will provide the opportunity to solve problems while developing technical skills.

Education

University of Connecticut

Storrs, CT

Bachelor of Science in Electrical Engineering

May 2019

GPA: 3.64/4.00

Relevant Coursework: Signals & Systems Analysis, Digital Systems Design, Microprocessor Applications Lab, RF/Microwave Engineering, Digital Signal Processing, FPGA Design Lab and Software Defined Radio Lab

Technical Skills

Programming: Working knowledge of VHDL, C, Python & MATLAB / Simulink

Laboratory: Oscilloscopes, Function Generators, Digital Multimeters, Logic Analyzers, Soldering Irons

CAD: LTSPICE, OrCAD Capture, Mentor DxDesigner & PADS, ModelSim, Libero SoC Design, Xilinx Vivado

Professional Experience

UTC Aerospace Systems – ISR & Space Systems

Windsor Locks, CT

Electrical Design Engineering Intern

May 2018 – August 2018

- Wrote VHDL code, tested modules in ModelSim and performed analysis on digital controllers in Simulink to support team in meeting customer design review deadlines
- Codeveloped a user-friendly MATLAB based tool to increase the efficiency of performing stress analysis on electrical flight hardware
- Modeled and designed a VHDL testbench to streamline the testing of a UART communication protocol

Triumph Engine Control Systems

West Hartford, CT

Electronics Design Engineering Intern

May 2017 – August 2017

- Designed and developed an engineering lab test fixture capable of power interrupt and power spike injection to efficiently test prototype ECU's against power quality standards such as DO-160
- Researched and evaluated electrical characteristics of several stepper motor driver ICs for future implementation in ECU designs
- Utilized SPICE simulations, PCB and schematic capture software, extensive laboratory testing and thorough analysis to meet design goals

Engineering Project Experience

UConn Formula SAE Racing Team

Storrs, CT

Electrical Team Lead

May 2017 – Present

- Manage and contribute to the design and development of electrical system for formula style race car that placed top 15% in an international competition
- Work directly with other team leads to reduce weight and increase drivability without sacrificing performance
- Practice leadership and management principles such as setting team goals, deadlines and delegating work load to ensure the electrical system is completed before yearly competition

Advanced Microcontrollers Independent Study

August 2018 – December 2018

- Independent study using AVR series MCUs to get hands on experience with advanced topics such as Bluetooth, CAN-BUS, OLED, SRAM and Real Time Operating Systems (RTOS)

Involvement

UConn Formula SAE Racing Team

September 2015 – Present

IEEE - Eta Kappa Nu Honor Society

Storrs, CT

Video Team Lead

November 2017 – Present

- Produce tutoring videos to help underclassmen in introductory electrical engineering courses

Eagle Scout, Boy Scouts of America Troop 28, Hebron, CT

November 2014