Website

## Seeking for Electrical & Computer Engineering Summer Intership/Co-op

Citizenship: F1 with CPT (1 year) and OPT (1 year + 2 year STEM Extension)

#### **EDUCATION**

M.S. Electrical Engineering, Bradley University, USA

Specialized in Robotics and Mechatronics

August 2023 - Now GPA 4.0/4.0

**B.S. Electrical Engineering**, University of Cincinnati, USA Mathematics and Embedded Systems minor, University Honors Program

August 2016 - May 2021 GPA 3.9/4.0

## **SKILLS**

Embedded Hardware
Embedded Programming
Communication Interface
Circuit Design
Prototyping and Testing
Software Development

System design with MCU, circuit/firmware driver for sensors, actuators and robots HAL and RTOS programming on architectures including PIC, AVR32, STM32 I2C, SPI, UART, Bluetooth, Zigbee, USB, Ethernet, CAN in signal and application layer Analog and digital circuit design, simulation, FPGA synthesis with VHDL and Verilog On-board and PCB prototyping, developing test fixture and procedure, troubleshooting C/C++, Python, Git, Linux, Bash scripting, MATLAB & Simulink

## **EXPERIENCE**

## **Embedded Software Engineer**

L&T Technologies

August 2021 - July 2023 Peoria, IL

- Maintain and troubleshoot embedded C firmware for Catepillar transmission Electronic Control Module (ECM)
- Maintain and develop automated testing framework for ECM firmware in a virtual simulated environment
- Develop feature-oriented test strategies and automation scripts for ECM firmware

# Brain Computer Interface (BCI) Research Assistant UC HCI Lab

August 2019 - May 2021 Cincinnati, OH

- Apply data analysis methods to spatio-temporal electroencephalographic (EEG) data for classification problem
- Apply machine learning methods to detect human motor imagery intentions using post-processed data
- Assist on a multi-disciplinary robotic project that implements BCI, SLAM and NLP

## Electrical Engineer (R&D Co-op)

Ethicon Endo-Surgery Inc.

June - August 2019 Blue Ash, OH

- Designed, assembled, troubleshooted and tested a PCB for a prototype product
- Built test fixtures for NFC sensors using microcontrollers
- Documented implementation methods, testing procedure and test results

## Electrical Engineer Team Member

August 2019 - August 2021

rLoop - a global, crowdsourced engineering organization

- Not-A-Boring-Competition is run by the Boring Company that aims to build a novel tunnel boring system
- Designed a modified leader-follower control scheme with pure-pursuit algorithm for the proposed final design draft
- Design proposal selected with 11 other finalists among 390 competitors

## **PROJECTS**

Neuromorphic Computing Research Developed an analog circuit system to simulate spiking neural signal

Modular Garden Monitoring System An embedded system that autonomously manages garden environment with friendly UI, modular design and wireless communication (Senior Capstone Project)

**Hyperloop Competition** Participated in the engineering of the levitation pod for the carrier vehicle. The system uses PID controller designed in Python and implemented with C into FreeRTOS.

UC Robotics Developed computer vision system for sensor fusion and decision making algorithms. Maintainer of the GitHub repository while in the team.