liu2z2@mail.uc.edu

LinkedIn

Website

Seeking for Full-Time Position/Internship Starting July 2021 Interested in Electrical & Computer Engineering Positions

Citizenship: F1 student with 3-year-long Optional Practical Training (no need for sponsorship, see detail from USCIS)

EDUCATION

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

Signals and Systems Intelligent Data Analysis Machine Learning AI Implementations Robotic Engineering

DSP, singal transformation methods, control system theory, linear system theory Classification, clustering, anomaly detection and methods, association analysis Image processing, natural language processing and reinforcement learning Tensorflow, Scikit-Learn, OpenCV, Pandas, MATLAB

Robotic controls, motion planning, simulation, sensor fusion and computer vision

Software Development Git, Linux, C/C++, C#, Java, Python, MATLAB, SQLite database

EXPERIENCE

Brain Computer Interface (BCI) Research UC HCI Lab

August 2019 - now 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 and implemented a dynamic feed-back control system for NFC sensors
- Documented implementation methods, testing procedure and test results
- Presented projects and improvements to managers and peer Co-op students

Engineering Teaching Assistant for Bio-Robotic Class

Biology Department, University of Cincinnati

October 2019 - April 2020 Cincinnati, OH

- Sensing in Animals and Robots is an NSF funded program that teaches animal sensing by robotic implementations
- Implemented sensor fusion and computer vision algorithms requested by students, and gave lectures on simple algorithms
- Helped the professors organize the class and helped students understand the engineering portion of the class

Automatic Assembly System Engineer (Co-op) Jergens Inc.

Jan - August 2018 Cleveland, OH

- Designed and managed installation a customized grinder safety system with B&R Automation System (PLC)
- Designed and implemented the GUI and finite-state machine control for the industrial system in C-based language
- Applied project management skills to maintain progress and ensure delivery
- Documented project by writing manuals for operators, electrical diagrams to technicians, and programming doc to engineers

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)

Gas Tracking and Prediction App Used web crawler that collects gas prices, SQL to maintain database and developed early-stage data analysis methods for price prediction

Mask Detection Robot Developing an autonomous system that detects and suggests face masks on a person by a neural network algorithm (ongoing)