

EXPERIENCE

Co-Op Intern with Cross The Road Electronics

Software Engineer

📅 Jun 2017 – Present

📍 Macomb, MI, USA

- API development in Java, C#, C++, and LabVIEW
- Firmware development in embedded C on dsPIC and STM32 microcontrollers
- Thorough testing of new API/firmware features on hardware
- Custom ESP8266 firmware and MicroFramework C# flashing application that communicates with 8266 bootloader
- Company GitHub Repository available [here](#). GitHub account used specifically for work-related matters [here](#).

Personal Projects

📅 Ongoing

📍 Home

- Dashboard application written in C to interface with CAN devices
- Ubuntu 18.04 Home Servers used as backup network drive & other projects
- Portainer Service used to deploy arbitrary Docker containers
- Jenkins Docker container to implement Continuous Integration in GitHub Repos
- Use of Kali Linux to participate in Capture The Flag Cybersecurity challenges
- PCB Design for an arcade cabinet to RetroPie conversion board, includes audio amplifier for built in speakers
- Various Projects for dsPIC including I2C, SPI, RFID, LCD

VOLUNTEER EXPERIENCE AND LEADERSHIP

FRC High School Robotics Competition

📅 2013 – Present

📍 Southeast MI

- 2013-2017 High school student member of 33 Killer Bees
- 2017-Present Control System Advisor for FRC Competitions
- 2018 Software Mentor for 33 Killer Bees
- 2019 Helped bring FRC to De-La-Salle (DLS) Collegiate HS
- 2019-Present Co-Lead Mentor for 7762 Autopilots (DLS)

Phi Delta Theta Member

📅 Ongoing

📍 Kettering University

- 2018-2019 Awards Secretary
- 2019-2020 Technology Secretary, Warden
- 2017-Present Ongoing Service Events

RESEARCH EXPERIENCE

Student Research Assistant

📅 2019

📍 Kettering University

- Assistant to **Dr. Yunsheng Wang**.
- Studied Cohda MK5 OBU's and intercommunication security
- Researched into machine-learning neural nets for image classification using TensorFlow

EDUCATION

Bachelors of Science in Computer Science, Minor in Computer Engineering, Concentration in Cybersecurity

Kettering University

📅 Oct 2017 – Mar 2021

📍 Flint, MI, USA

Working on my Co-Op Thesis involving the research and development of a new product utilizing Modern Control Theory Kalman Filters.

Currently holding a 3.81 GPA as a Senior II.

Relevant Courses

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|-------------------------------|------------|
| Operating Systems | (CS 451) |
| Cloud Computing | (CS 351) |
| Cryptography | (CS 415) |
| Wireless and Mobile Security | (CS 457) |
| Computer and Network Security | (CS 455) |
| Microcomputers II | (CE 420) |
| Circuits I | (EE 210) |
| Electronics I | (EE 320) |
| Differential Equations | (MATH 204) |

PROGRAMMING SKILLS

C#

C

C++

Java

LabVIEW

Git

Python

LaTeX



TECHNICAL SKILLS



SOFTSKILLS

