

Professional Experience

Software Engineer, FarrPro, Iowa City

August 2022 – Present

- Restructured existing database to reduce time complexity of data flux between Sentry Software, embedded devices, and server
- Rebased data structure used in home-made software to enhance capabilities and solve 120+ bugs
- Prototyped and tested a gateway using an ESP32 using Arduino IDE and VS Code
- Assisted the engineering team to aid in the expansion of the Sentry Software for deployment to customers
- Developed code in Android Studio in Java, Android, and XML to monitor piglets and swine to notify farmers of unusual activities

Electrical Engineer, Arconic Inc, Davenport

May 2022 – August 2022

- Assisted Engineering team of 6 in the completion of Thermal Camera Capital project to optimize cooling time
- Established a new communication architecture involving Modbus TCP/IP and Ethernet connections to increase efficiency of capital project
- Provided quick and continuous troubleshooting solutions to keep the plant running on schedule including but not limited to, switch replacement and reconfiguration of machinery
- Recorded and performed data analysis using Excel, PI Vision to pinpoint malfunction of machinery
- Upgraded and redesigned PLC/HMI controls to increase performance of the industry by optimizing cooling system

Teaching Assistant, University of Iowa College of Engineering, Iowa City

August 2021 – Present

- Lead discussions with 30 students to enhance understanding of material such as Kirchhoff’s Law, Voltage and Current divider, DC, and AC circuits
- Conducted review sessions for exams and homework
- Received positive feedback from all 80+ students out of 120
- Supervised lecture hall of over 120 students to provide adequate help during in-class assignment

Engineering Project

Bluetooth Voice-Controlled Car: Tesla Model DIY | Semester Project

January 2022 – May 2022

- Implemented Bluetooth communication between a smartphone and a Bluetooth module to control in cooperation with a CSE major
- Constructed electrically powered car from scratch using Arduino microcontroller
- Wrote efficient function code in C using Libraries and I2C to implement an obstacle detecting system and avoiding system

Smart Greenhouse | Semester Project

January 2022 – May 2022

- Created an original and interactive database using InfluxDB and Firebase
- Established internet and Bluetooth communication between the different components using a Raspberry Pi as the mediator in JavaScript and Node.js
- Used object-oriented programming, API and computer networking to achieve the envisioned result in Java, Python and C++

Education

University of Iowa, Master of Science Electrical & Computer Engineering (M.S)

August 2022 – May 2024

University of Iowa, Bachelor of Science Electrical & Computer Engineering (B.S.E)

August 2019 – May 2023

Computer Science Minor

GPA: 3.4/4.0

Leadership

Model UN Delegate, Country delegate

- Delegate of Belgium in Geneva at UN headquarters, over the topic of AI and Ethics, was elected best delegate
- Delegate of Portugal in New York at the UN headquarters over the topic of food sustainability and world hunger

Skills

-Cybersecurity	-Data mining	-Software Design	-Ruby	-AR / VR	-Java API	-GUI	-Raspberry Pi	-French Fluent
-HTML/CSS	-C(language) C++	-Python	-Arduino IDE	-Electrical Circuits	-Firebase Database	-SQL MYSQL	-Embedded Software	-Computer Science