Jake Hafele

309-696-0228 | jakehafele1@gmail.com | Portfolio at jakehafele.com

Objective

Seeking an electrical engineering internship in hardware design and/or testing for the Summer of 2023

Education

Iowa State University, College of Engineering, Ames, Iowa

Electrical Engineering (B.S.) **Expected Fall 2023**
Studied abroad at the University of Limerick, Ireland **Spring 2022**
GPA: 4.0/4.0

- Top 2% of Engineers award **2019 – 2022**
- College of Engineering Dean's List **2019 – 2022**

Employment

Collins Aerospace, Systems Engineer Intern; Cedar Rapids, Iowa **May 2022 – Present**

- Update documentation on CH-47F Chinook that satisfy customer needs and requirements
- Validate software and hardware updates system wide through a suite of tests
- Learn and research about new subsystem designs that change the functionality of the Chinook
- Contribute to team wide test events which covers the span of system integration over a full week

Workiva, Software Engineer Intern; Ames, Iowa **May 2021 – August 2021**

- Responsible for programming Java software which managed roles for admin users of organizations and creating module-based solutions in dart for a front-end user interface
- Verified developed code against 700+ tests and was responsible for tracing stack errors back to the correct area, which helped teach me how to navigate errors easier and think critically
- Collaborated with 10+ developers in an agile team setting where work was constantly being reviewed weekly, where I then learned how to develop team goals and proactiveness

Skills

Hardware Debugging PCB's, Soldering, Creating Bill of Materials, HAM Radio License
Software Git, Altium, KiCad, LT Spice, Arduino IDE, Fusion 360, Cura
Languages MATLAB, Python, C, C++, Java, HTML

Projects

Solar Car

- Lead and designed the battery protection system, which monitors and regulates the voltage, current, and temperature of 1,190 lithium-ion batteries in a 130-volt pack, with the work of Altium
- Managed the horn and lights project, which controls the horn, front, and rear lights by creating a bill of materials and debugging the board with new team members
- Implemented a catalogue system for 500+ parts which are used between 10 different PCB's

"Useless" Machine

- Designed a PCB in Altium to read 8 different switches and pass them to Arduino code
- Integrated circuits between a custom PCB and an Arduino board to manipulate 3 moving servos
- Used Fusion360, Cura, and a 3D printer to create 4 moving pieces for an autonomous arm

Activities and Leadership

- PrISUm Solar Car Club – Board Manager, Librarian **2020 – 2022**
- Critical Tinkers – Secretary **2019 – 2022**
- The Engineering Ambassador and Mentor Program **2020 – 2021**