­­­Jake Hafele

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**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 2024**

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 August 2021 – 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 Boards, Soldering, making bill of materials, 3D printing

**Software** Git, Altium, KiCad, LT Spice, Arduino IDE, Fusion 360, Cura

**Languages** C, C++, MATLAB, Python, 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 in each circuit board we design

**“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**