



# ELI PAULSEN

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## EDUCATION

### University of Iowa

Computer Science and Engineering, Bachelor of Science in Engineering

December 2024

3.70/4.00

**Relevant Coursework:** Data Structures, Algorithms, Software Design, Embedded Systems, Operating Systems, Databases, Computer Architecture, Software Security, Networks, Programming Language Concepts

## EXPERIENCE

### Collins Aerospace

Software Engineering Co-op

May 2023 – December 2023

Cedar Rapids, IA

- Gained valuable experience in low level avionics platform software working on a multicore processor system
- Created a C program enabling users to custom allocate memory from the L2 cache to specific CPU cores, improving program performance and customization capabilities
- Developed a python tool to parse and visualize relevant data from CPU boot logs, enhancing the debugging process
- Documented code changes and drafted system requirements needed for future FAA certification

### University of Iowa AIS

Student Software Developer

December 2022 – Present

Iowa City, IA

- Worked part-time during school as a Java developer in Iowa's administrative information systems department
- Assisted in development of the back-end of the university's ethics violation reporting web application
- Developed Spring Boot REST APIs to effectively manage and save ethics report data through HTTP requests
- Crafted Vue.js components to enhance the user interface of report forms, contributing to an improved user experience
- Built Gitlab CI/CD pipelines to automate the build, test, and deploy processes for multiple applications

### Fin and Feather H2O

Outdoor Rental Specialist

May 2021 – September 2022

Iowa City, IA

- Provided excellent service at a kayak and paddleboard rental center, ensuring positive experiences for customers
- Supplied hands-on and patient instruction to novice customers, imparting essential skills and knowledge for kayaking and paddleboarding, leading to a safe and enjoyable experience on the water
- Conducted efficient rental transactions, managed payments, and communicated safety guidelines to customers
- Collaborated with team members for daily operations, including inventory management and equipment maintenance

## PROJECTS

### User Programmable Chess Clock | C, Arduino, I2C

April 2023

- Designed a user-programmable chess clock embedded system, showcasing both hardware and software expertise
- Demonstrated advanced skills in C programming for microcontrollers, ensuring efficient management of memory and contributing to the seamless operation of the chess clock
- Integrated various hardware components, including an LCD display, matrix keypad, buttons, and a real time clock

### Multiplayer Boggle Clone | Java, PostgreSQL, JDBC, JavaFX

November 2022

- Created a dynamic multiplayer Boggle game in Java with networked gameplay under a strict deadline
- Successfully integrated a PostgreSQL database with JDBC, ensuring seamless storage and retrieval of user profiles, game records, and statistics
- Utilized the JavaFX library to craft an engaging and user-friendly interface, enhancing the overall gaming experience

## SKILLS

**Technical:** Java, Python, C, C++, JavaScript, SQL, Vue, React, Gradle, Docker, Linux, Git, SVN

**Soft:** Problem solving, Collaboration, Adaptability, Communication, Leadership