Isaac Kenyon

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Education

Iowa State University Ames, IA
Bachelor of Science in Computer Engineering   Expected May 2025
Cumulative GPA: 3.23

Academic Project Experience

Autonomous Tractor Model Project   January 2023 to May 2023
- Developed and analyzed code running on a microcontroller that was part of a bigger embedded system overall.
- Implemented I/O functionality by implementing servo motor, ping, and radar sensors and developed algorithms for object detection and responses to different stimulus due to the sensors.
- Succeeded as a four-person team using time management skills to plan and solve problems that arose so that the project was completed on time.

LED Bit Car Laboratory Project   August 2022 to January 2023
- Acquired a strong foundation in digital logic, encompassing fundamental concepts such as Boolean algebra, logic gates, truth tables, and binary arithmetic.
- Utilized Quartus II software for FPGA design and VHDL code while gaining an understanding of its features and functionality, including synthesis, simulation, and programming.
- Prepared a written technical report that effectively conveyed project objectives, methodologies, and results in a clear and organized manner.

Personal Projects

Scramble – Encryption   June 2023 to August 2023
- Developed an algorithm that encodes and decodes data based on a privately kept key provided by the user.
- Implemented the use of a hash function to increase security and provide linear execution time.
- Finished the project by making use of a command line interface, PowerShell scripts, and windows file explorer/shortcut icons.

Algorithmic Text Detection (ADT)   June 2023 to August 2023
- Applied lexical and syntax tokenization techniques to analyze large amounts of ascii text.
- Made use of tree data structures that serialize learned data for the ability to be used on different devices/personalized for each use case.
- Created a new binary file format for saving data efficiently and the ability to read data much faster.

Skills

Languages: Java, C, python, VHDL, JavaScript, Verilog, PHP, PowerShell, Bash, Sh
Software: Quartus II, Questa Sim, Microsoft office, SpringBoot, Linux, FreeBSD, Git, FL Studio

Leadership and Activities

ISU Technology/Crypto Club – Board Member   August 2022 to Present
ISU Intramural Sports – Participant   January 2022 to Present