Robert Crist

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Summary

Driven Electrical Engineering student seeking practical experience in the workforce. Focused on embedded systems with experience in both circuit design and programming. Strong willingness to learn with a commitment to seeing projects through. Interested in breaking into the intersection of hardware and software as well as machine learning and AI.

Education

University of Washington, School of Engineering, Seattle, WA *2018-Presenet*
Bachelor of Science in Electrical Engineering (Graduating Winter 2023)
In-Major GPA: 3.92/4.0
Cumulative GPA: 3.83/4.0
Dean's List: 2018, 2019, 2020, 2021, 2022

Technical Skills

Experienced Programmer (Java, C, C#, Python)
- Designed a rubber band cannon that automatically aims on the vertical axis using Arduino and FreeRTOS
- Developed a visual .MIF file generator with python to aid in creating images on an FPGA display
- Created a function graphing tool in java using the drawing panel module

Skilled Circuit Designer (SystemsVerilog, Breadboarding, MultiSim)
- Developed a 64-bit pipelined ARM CPU using explicit logic and no blocks
- Created a multi-level maze game on an FPGA board
- Implemented Bresenham's Line Algorithm into an algorithm state machine

Creative Software and CAD Modeling (Unity, AutoCad, Adobe Suite)
- Worked in a team using unity to create an octopus VR experience
- Strong foundation in 3d modeling for course material
- Proficient in Photoshop, Premiere Pro, Illustrator, and After Effects from personal as well as academic projects

Relevant Courses

Digital Circuits and Systems Series; Computer Architecture I; Data Structures and Algorithms; Devices and Circuits; Introduction to Embedded Systems; Circuit Theory Series; Advanced Technical Communication;

Experience

ENGINE Capstone: Octopus VR Experience Team – Seattle, Washington *Dec 2021 – June 2022*
Game Developer
- Created an AI model to enable the tentacles to independently reach in and explore the interior of an object
- Implemented several core gameplay mechanics of the VR experience
- The project seeks to create a VR experience where users control a realistic octopus model

Self Employed – Seattle, Washington *Sep 2020 – Dec 2021*
Mathematics Tutor
- Tutored upper-level high school math courses to multiple students
- Enabled students to achieve their highest grade in math thus far as well as change their opinion on the subject
- Improved technical communication as well as metacognitive skills

Personal Links

Personal Website: https://robertcrist.github.io/
GitHub: https://github.com/RobertCrist
Octopus Research Group: http://arl.cs.washington.edu/ORG/