Stephen Harris

stephen.harris@utahtech.edu | 2082408709 | St. George, Utah

Summary

Passionate software developer and computer engineering student, with academic experience in low level computer architecture, embedded systems, operating systems, and computer graphics, alongside experience with several assembly languages, and analog circuit design.

Education

Utah Tech UniversityAug 2022 - Present

Bachelor of Science in Computer Engineering $\,\cdot\,$ St. George, Utah

GPA - 3.70/4.0

Courses Taken

Computer Architectures | Operating Systems | Embedded Systems II | Microelectronics | Signals & Systems | Systems & Controls | Differential Equations | Linear Algebra

Experience

Target (Retail) May 2023 - Present

Tech Sales Specialist · Part-time

St. George, Utah

- Coordinated with Target team leads, and worked with fellow team members to ensure the tech sales floor was clean, fully stocked, and accurately priced for Target guests.
- Responsible for assisting guests questions about any tech merchandise, and with assisting in helping guests purchase high value locked items.
- Worked with Target Asset Protection to make sure that high value merchandise was accurately inventoried, and protected from theft.

Idaho State University - CEWT

Aug 2019 - Apr 2020

Pocatello, Idaho

Front End Web Developer · Internship

- Redesigned the <u>Construction Combine Website.</u>
- Improved the design of the website using custom HTML, CSS elements.
- Added necessary functionality to the website using JavaScript.

Skills

Programming Languages: C/C++, Python, Lua, JavaScript, x86-Asm, RISC-V, AVR-Asm, MSP430-Asm, GLSL **Tools and Technologies:** OpenGL, Arduino Toolchain, MSP430 Toolchain, GDB Debugger, Linux OS, KiCad, WinAPI **Technical Skills:** Differential Equations, Linear Algebra, Computer Architectures, Embedded Systems, Analog Circuits

Projects

UT Design Day Turbo Regatta Project | <u>Utah Tech Discovery and Design Day</u>

Jan 2025 - Apr 2025

University Engineering Department · Arduino, MSP430, KiCad

Embedded Systems

Participated in the Turbo Regatta fall-semester project by working with several other engineers to drive a repurposed pedal boat with custom built electric motors. The Computer Engineer of the group (myself) designed the user interface, and designed the embedded system that drove the UI displays, and the PWM signal that controlled the electric motors that controlled the boat.

WebAsm/WebGL C 3D Game Library | WebGL Game Library GitHub Repository

Jan 2025 - Apr 2025

University CS Department · C, WebGL, EMCC Compiler, HTML5, JavaScript

Graphics Programming

Successfully designed, from scratch, a 3D Web Game Library using the OpenGL/WebGL API and the Emscripten WebAsm compiler. Written in the C programming language. Games built in this library can run in a multi-platform browser environment.

UT Engineering Design Day Project | Project Github Repository

University Engineering Department · C/C++, Arduino Library, Adafruit

Jan 2024 - Apr 2024 Embedded Systems

Collaborated with two others in creating a Rock-Em Sock-Em inspired game for Utah Tech University Engineering Design Day, by successfully utilizing servos, Adafruit Wi-Fi chip, RFID scanners, and four microcontrollers communicating through via the I2C protocol.

Arduino DHT11-Sensor Library | DHT11-lib Github Repository

Aug 2024 - Dec 2024

University Engineering Department · C++, Arduino Library

Embedded Systems

Successfully designed a functional C++ library for the Arduino-Uno microcontroller that communicates with and reads humidity/temperature values from the Adafruit DHT11-Sensor.