

Zachary E Anderson

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Profile

Candidate for a Bachelor of Science in Computer Engineering with interests in both software and hardware design. Possessing a strong work ethic driven by the motivation to expand my knowledge and acquire new skills daily. Thriving in diverse learning environments, I am dedicated to continuous growth in academia and the workplace.

SKILLS

- o Skilled in Typescript/JavaScript, C, C++, Java, Python, Verilog, VHDL, MySQL, HTML, and CSS.
- o Experienced with REST and SOAP API's, Node.js, Postman, Xilinx Vivado, pgAdmin, breadboards, electronic circuits, GitHub, Microsoft Suite, Google Applications, and Visual Studios
- o Proficient in Software design, Cloud architectures, Automation scripting, and Agile development.

EXPERIENCE

Software Engineering Intern - J.B. Hunt Transport Services

June 2023 - August 2023

- o This position included Full-Stack Web Development with JavaScript and PostgreSQL. The frameworks I worked with ranged from React for front end development, to Typescript for backend development and scripting for automation and pipelining. I had also gained skills in tailwind CSS, and different types of API's including REST and SOAP. This internship also keyed me into networking knowledge that included Subnetting, TCP connections, Cloud Ingress Stacks, and Web Certificates.

PROJECT HIGHLIGHTS

Full Proxy Server Migration Web Application

- o Conducting analysis over virtual servers I was able to create a migration application for virtual IP addresses, and the virtual servers they lived on.
- o Development of this project used full stack development including automation scripting with Typescript, and UI/UX design with react and tailwind CSS.
- o Analyzing API responses from REST APIs was critical for this application, as it was used inside scripts and migration of the actual virtual IP's.

Autonomous SoC Robot

- o Currently adding and developing different controllers on a SoC architecture including timers, interrupts, and MAXSONAR hardware sensors
- o Future development includes interfacing the chip onto a motorized robot with motors and four wheels. Which will allow the robot to follow a line on a track similar to a line on the pavement with timing restrictions, and speed requirements.

Web Scraper Application

- o Researching C# programming I came up with the idea to scrape tool websites to make an interactive application to find the cheapest price for tools.
- o Generation was done by using a basic C# form, and a local JSON database. I used simple NuGet packages including HtmlAgilityPack, and Newtonsoft.json.

Micro Controller Design

- o Development of this basic micro controller I implemented was based on a pipeline system and it had an off block memory, and a base ALU unit with load and store controllers.
- o Researching combinational and sequential circuits both were used to implement all the state machines for the ALU and load and store controllers.

LEADERSHIP

College/High School Band Leadership

Fall 2018 – Present

- o Supervised and controlled groups of kids to adults in a fast-paced environment that arose challenges including stress, injuries, and confrontation.
- o Gained invaluable skills, and learned how to be more accepting towards every need that may come up and accepting towards everyone around me.

EDUCATION

University of Arkansas

Expected: May 2024

Bachelor of Science in Computer Engineering
Minor in Computer Science
Fayetteville AR | GPA 3.375