

Technical Skills

Programming Languages

C, C++, C#, Java, Python, hls, TypeScript, SQL, HTML, CSS, L^AT_EX

Development Environments

VS Code, Visual Studio, Spring Tool Suite

Tools & Etc..

Git, Subversion, Jira, Coverity, Microsoft Office, React, Node.js, Unity

Work Experience

SMX Tech

April 2022 - January 2023

Fullstack Software Engineer

Huntsville, AL Remote

- I worked on a team developing logistics software. I supported the legacy Java application and modern React application.
- For the legacy application, I would create new data types, add them to the database, and perform maintenance to algorithms to utilize the new data. Then I would represent this data in line graphs or tables.
- For the React application, I would build form components that would take user input data and I'd apply algorithms I would write in Java to the data, then I would supply that data as a modular React table component.
- The team I worked on would have scrum meetings twice weekly, we used Git for version control, and we would utilize Jira for tracking our tasks, testing, etc.

Leonardo DRS

February 2020 - August 2021

Software Engineer

Huntsville, AL Hybrid

- I worked on multiple projects at DRS, including an Encryption/Validation API in C++, a Serial Downloader C# Windows Form application, and a Tank Diagnostics application written in C++ which would lock the user out of the operating system (Windows XP/7).
- I used tools and libraries like Git, Subversion, Jira, Coverity, VMWare, OpenSSL, CMake, GoogleTest, DotRas, RASDial and SiteKiosk.
- I would setup the hardware to house our software, which included installing the operating system, updating the BIOS, setting up the user accounts, and the applications. This sometimes included writing batch scripts.
- I also would work in SIL (Software-in-the-Loop) environments which would simulate an Abrams tank.
- I created and updated documentation for the projects I worked on using Microsoft Office (mostly Word, PowerPoint, and Visio)
- I was an ambassador of the company by interfacing with customers to present design decisions and overall progress on the implementation of software products.
- I also led a couple groups of interns on a project to create an application and database to store weekly status updates of employees for our management during covid.

National Science Foundation

May 2019 - August 2019

Undergraduate Researcher

Auburn University

- I was awarded the Research Experiences for Undergraduates grant from the National Science Foundation where I researched Cloud Computing infrastructure.
- I helped model different IoT Cloud Computing topologies ranging from large fog to edge computing environments in a software simulation using Java, and then graphed the results using MatLab.
- I also created a posterboard to present my research, and I helped write a research paper in L^AT_EX

Personal Projects

Procedural Mesh

- This project is one of several I've been making to teach myself graphics programming using C#, Unity, and High-Level Shader Language (hlsl).
- It procedurally generates a 3D mesh for different shapes, by taking an input resolution and creating a bunch of vertices based on the desired resolution. It then draws a bunch of small triangles between the vertices to create the shapes.
- By tracking the position, normal, and tangent values of each vertex, I'm able to place a texture mapping over the shape, to give it a color and 3D texture.

Education

Auburn University

Bachelor of Engineering, Software

August 2017 - December 2019

GPA: 3.7 *Magna Cum Laude*

Calhoun Community College

Associate of Science, General Studies

August 2013 - May 2017

GPA: 3.75 *Magna Cum Laude*