Anderson Allen

Software Engineer

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Software Engineer with expertise in immersive VR development, interactive simulations powered by Large Language Models (LLM), game development, and data-driven software solutions. Proven track record of cross-functional collaboration, innovative research projects, and efficient execution of complex software architectures.

Skills

Programming Languages: Java, C#, C++, Python, SQL, JavaScript, CSS, HTML

Tools: Unity, Vive Pro Eye, Firebase, Tableau, Git, Blender, OBS, AWS, OpenAI API

Frameworks: Flutter, React, SFML, Pandas, Node.js

Additional Skills: Microsoft Office, Google Suite,

UX Design

Experience

Unity / Virtual Reality Developer

University of Florida - Rinker School of Construction Management

August 2021 - Present

- Lead development of VirtuAI, an LLM-powered interactive VR safety training program for construction workers.
- Developed VR training modules using Unity, Blender, and C#, focusing on construction safety protocols and human-drone interaction.
- Contributed to six research projects sponsored by Construction Safety Groups, and the US Department of Labor, including:
 - o Trained workers on UAV safety at heights through interactive VR simulations.
 - o Investigated safety challenges of drones and human-drone communication in construction sites.

Research and Development Intern

Summit Wash Holdings - New Mountain Capital

May 2023 - August 2023

• Designed an analytics dashboard using Python and SQL for monitoring customer and inventory performance metrics for a large-scale car wash business.

Website and Game Dev Intern

Agritisan - Singapore

June 2022- Aug 2022

- Built a website on Wix to support a company transition from production to education-focused initiatives.
- Created a mobile app using Flutter and DigitalOcean to create a interactive application to supplement sustainability education.

Software Projects

Senior Project: NDI Integration for Esports Broadcasting

Fall 2024

• Developed a C++-based system leveraging Network Device Interface technology to integrate multiple video feeds (player cameras, gameplay cameras, and commentator views) for low-latency broadcasting

P2P File Sharing System

Spring 2024

• Implemented core features including reliable transport protocol, symmetrical peer interaction, and handshake mechanisms using Java/C++.

Programming Language Concepts

Spring 2023

Created a full programming language from scratch using Java, including lexer, parser, and composite types with JVM integration.

Education

Bachelor of Science in Computer Science

University of Florida, December 2024

Relevant Coursework: Data Structures and Algorithms, Computer Network Fundamentals, Software Engineering, Information and Database Systems, Game Content Production, Game Systems Production, Operating Systems, Computer Organization, UX Design, Human-Centered Interaction

Organizations: Delta Sigma Phi Fraternity, Dance Marathon, Gator Esports (UF Club Esports), Student Government Cabinet