

Aeson Akhras

Software Engineer

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EDUCATION

Bachelor of Science in Computer Science

2016 - 2021

Purdue University, West Lafayette, IN

GPA: 3.55

Relevant Coursework: Systems Programming, Operating Systems, Computer Graphics, Computer Architecture

SKILLS

Proficient In: C/C++, C#, Unity | Experienced In: Python, Unreal Engine 4, Java

WORK EXPERIENCE

Envision Center at Purdue University - West Lafayette, IN

2020 - present

Software Engineer

- Utilizing Unity, C#, and other technologies to deploy interactive simulations to Desktop, Web, and the Meta Quest.
- Collaborating with stakeholders to define project goals and providing ongoing consulting during the designing and developing of interactive software for training, educational, and research purposes.
- Leading a team of undergrad students, creating a simulation to train users on pre-trip inspection for their CDL license. Ensuring code quality, maintainability, providing mentorship, delegating tasks and ensuring the project is on time.
- Creating engaging virtual labs that enhanced student learning, including a project that allowed students to explore and analyze fluid flow data. Working with subject matter experts to reduce the processing power needed to analyze fluid flow and developed a pipeline that will efficiently transform data from their software to a Unity WebGL frontend.
- Designing and developing an interactive atomic electron orbital visualization using WebGL and ray marching.
- Developed a VR simulation for scientific research on electrical safety. Features include collection and export of eye and body tracking data and a frontend to allow researchers to change parameters of the experiment.
- Updated existing projects in Unity based on client feedback. Worked on various new features and performance enhancements, speeding up some elements of the projects by up to 200%.
- Worked on various other projects including OSHA and pharmaceutical training, and a virtual lab on smoke plumes.

Purdue University - West Lafayette, IN

2019-2020

Undergraduate Teaching Assistant

- Classes included Systems Programming, Computer Architecture, and Virtual Reality Applications.
- Assisted instructors and students in labs/projects covering topics such as memory allocation, multithreading, web server programming, computer architecture, assembly, debugging programs, and best practices in virtual reality.

DMI (Digital Management, LLC) - Carmel, IN

Summer 2019

Software Engineering Intern

- Worked on a team to redesign the frontend of an internal website based on specifications from UI/UX designers.
- Implemented a new feature for image uploading to the backend using Microsoft Azure services and C#.
- Updated frontend using HTML, CSS, JavaScript, and Vue.js. Wrote unit tests for frontend using Mocha and Chai.

NSWC CRANE - Crane, IN

2017-2018

Computer Engineering Intern - Failure Analysis

- Developed a program in C to determine if a new chip was operating within acceptable quality specifications.
- Assisted experienced industry veterans conducting failure analysis on various electronics.

Game Developers Conference - San Francisco, CA

2016, 2022-2023

Conference Associate

- Answered questions, checked badges, and helped make sure the conference ran smoothly.
- Oversaw sections of the conference and ensured a high degree of quality for the attendees.

SIDE PROJECTS

- AEngine (2021 - present)**: Currently developing an engine in C++ using OpenGL. Current features include normal maps, model/texture loading, and directional shadows, with more to come!
- Peculiar Pestilence (2022)**: Developed in Unity for a Game Jam with a multidisciplinary team over the course of a month. Contributed to the programming team using C#.
- Dice Tower (2022)**: Created in Unity for a game jam over 48 hours. Developed skills to determine how to prioritize core features for an application that met the original vision.
- Ray Tracer (2021)**: Created with performance in mind using C++. Multi-threaded using OpenMP. Imports scene description files with JSON and can produce animation based on description files provided by JSON.
- VibeCheck (2020)**: During a hackathon, worked with a group on a mobile app for IOS and Android using Flutter. The app used the Spotify and Google Maps API to show users what music is popular in their area.