Liam Wynn

Portland, Oregon

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Qualifications • Comfortable in a wide range of programming paradigms and languages. • Strong mathematics background. • Use math and theory to derive algorithms that I implement, test, and optimize. • Adept at learning new tools and technologies. • Thrive in both team and individual settings.

Education

Portland State University Portland, Oregon
B.S., magna cum laude, Computer Science, Mathematics Minor 2014 - 2019

- GPA: 3.85
- Academic Honors: Dean's List (7 semesters).
- Inducted into Phi Kappa Phi National Honor Society 2018.

Experience

Avantor Sciences Hillsboro, Oregon
Fabrication Support Specialist November 2019 - Present

- Operate technical equipment and computer systems to perform preventative maintenance.
- Coordinate team to handle deliver chemicals and materials to customers.
- Significantly reduced machine maintenance costs by creating accessible database of unused parts on shelves.

Standard Insurance Company Portland, Oregon
Software Development Intern July 2018 - November 2018

- Worked on the back end of web applications using Java and Springboot.
- Did code reviews, unit testing, and agile/scrum software development.
- Worked with several other teams to complete projects.

Portland State University Portland, Oregon
Computer Science Tutor April 2016 - August 2019

- Assisted lower division Computer Science students with their course work and development endeavors.
- Helped students with problems that ranged from systems programming to rudimentary logic and discrete mathematics.

Projects

VA Audiology Web App - *Typescript, Node.js, SQL*
January 2019 - June 2019
For my senior capstone project, I worked with a team to add a back end to an existing application for the VA. This included a SQL database, a Node.js backend, and rewriting several parts of the existing front end to utilize the latter two systems.

Raycore - *C*
April 2018 - February 2020
A game engine built around ray casting which is a technique for rendering pseudo-3D environments. Rendering uses several numerical approximations and low-level optimizations to improve runtime efficiency.

Alexander - *C#, Unity*
October 2019 - Present
Real time, two-dimensional crowd simulator. Moves groups of AI agents with steering forces, flock behaviors, and flow fields. Efficiently calculates realtime paths for crowds with optimized search algorithm. Uses crowd maneuvering techniques to enable several groups of agents to navigate past each other.

Texture Generator - *Python, Tensorflow*
November 2018 - June 2019
Employed a variational autoencoder to generate texture images. Both the encoder network uses a convolution layers with leaky ReLU activation. The decoder uses transposed convolution layers with leaky ReLU activation. Uses the Adam Optimizer algorithm to train.

Multi-User Paint Program - *Node, Express, Socket.io, AWS*
September 2019 - December 2019
Web application where multiple users paint on shared canvas. Deployed application on Amazon EC2 server. Includes Docker support for ease of deployment.

Technical Skills

Languages: C, C++, C#, Haskell, Python, Java, Javascript, SQL, x86-64 Assembly, Lisp
Libraries and Frameworks: STL, Tensorflow, NumPy, OpenGL, WebGL, SDL2, CUDA, three.js, socket.io, jQuery, Node.js, Express.js, React, Asyncio, Pyro4, SCOOP
Computer Skills: GNU/Linux, Shell, Git Command Line, Vim, GDB, Valgrind, AWS, Docker, Latex, Google Cloud, Google AI Platform