Aaron Lam

Software Developer

♦ Website: https://github.com/aaronlam1004.

Education

UC Irvine (Donald Bren School of Computer Science)

September 2018 - December 2021

B.S. in Computer Science - Specialization in Visual Computing

3.8 GPA, Dean's Honor List (10 quarters)

Technical Skills

Programming Languages: C#, C++, C, Python, JavaScript/JSX, Typescript, HTML, CSS, Java, Unix/Bash

Frameworks: PyGame, React, Angular, NodeJS, SocketIO, NumPy, Flask, MongoDB, OpenCV

Software: Unity, Figma, Heroku, Git, Vim, VirtualBox, VMWare

Miscellaneous: Photoshop, Illustrator, Premiere Pro, Word, Excel, PowerPoint

<u>Coursework:</u> Computer Game Development, Introduction to Virtual Reality, Human Computer Interaction, User Interaction Software, Computer Networks, Computational Vision and Photography, Project in Computer Vision

Projects

Between Planes: A graphical, text-based adventure game akin to Oregon Trail but set in a fantasy world. The player controls action of party with random events and status effects that can occur. Worked with a team to create a design document and a basic version of the game. Mainly worked on UI, set up the game backend, and incorporated sprites into the game.

<u>Checkers:</u> Wrote the game of checkers using Python and the PyGame library. Added options to customize the look of the board and the pieces in the game. Implemented online play with client-server architecture using SocketIO and Python threading.

Igloo Club: A multiplayer online video game based on Club Penguin made using Construct 2. I gave a presentation to community members about creating this project.

<u>YouTube Video Search and Player App:</u> Wrote a YouTube app with a partner that allows you to search and play videos. In addition, video player can be controlled using hand gestures like playing, pausing, fast-forwarding, etc. Frontend created in ReactJS with backend using NodeJS that connects to the YouTube API. Hand gesture control uses Handtrack.js API.

<u>Vagr.</u> Command line tool to manage windowless Ubuntu virtual machines using VirtualBox. Implementations in Batch and Python. Python version uses JSON file to manage machine information and set up shared folders.

<u>VR Aliens</u>: Created a VR game located in a open-world city setting where the user is able to shoot aliens to get points. Added elements like 3D sound and particle effects to add more detail. Used the VR simulator in Unity to test VR controls.

Experience

Software Engineering Intern | Fusion Biotec Inc.

November 2021 - Present

Working with a team to create software for medical devices. Leverage Python for host-side applications and C++ for firmware. Utilize production management software like Git and Jira.

ACE Programmer | UCI Middle Earth

August 2020 – June 2021

Help plan, create, and set up events that promote academic growth and personal wellness to residents of the UCI Middle Earth dorms. Communicated with various organizations (e.g., Career Center) for events like resume workshops. Hosted different events (e.g., game nights, social discussions) for residents. Promoted events via social media and emails. Created flyers to promote and to give advice to residents.

Leadership/School Activities/Community Service/Volunteer Experience

External Vice President | UCI Information and Computer Science Student Council

June 2021 – Present

Lead a consortium of other Computer Science clubs to help schedule and cooperate on events. Help to manage the board and plan events.

VR Game Developer | Resilience

October 2021 - January 2022

Collaborating with a team to help develop Selena VR which is a Virtual Reality game focused on and promoting social emotional learning (SEL). Using Unity game engine to add assets and animations to the game.

<u>Corporate Outreach Chair</u> | UCI Information and Computer Science Student Council

June 2020 - June 2021

Led the Corporate Outreach committee. Outreached to companies for partnerships with our club. Additionally, write up and promote sponsorship packets for events and possibly funding.

ICS Tutor (Systems Design & Introduction to Programming) | UCI

January 2021 - June 2021

Assists students with material and assignments for both the System Design and Introduction to Programming classes. Tutored topics include processes, dynamic memory allocator, threading in C, basic programming principles, and Python.