Brandon Lam

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EDUCATION

Oregon State University   *September 2018 – June 2022*
B.S, Computer Science   GPA: 3.88
Department of Electrical Engineering and Computer Science

Relevant Coursework: Data Structures & Algorithms, ML & Data Mining, Intro to Computer Graphics, Computer Graphics Shaders, Intro to Parallel Programming, Linear Algebra, Vector Calculus

PROJECTS

Prime   December 2022
- The goal was to use C++ and Unreal Engine 5 to build an arcade third-person shooter prototype with basic win and loss conditions
- Developed fleshed-out character movement mechanics using with foot inverse kinematics.
- Used AnimGraphs, AnimInstances and Blend Spaces to set character animations
- Created basic AI using Behavior Trees to chase after and shoot at the player in sight
- Created a fully fleshed out shooting architecture that used ray traces to handle interactions between the player and AI, including damage events, UI updates and VFX

A Peasant's Treasure   February 2023
- Created a tower defense prototype in Unity using C#
- Built a pathing system using A* search and a modular grid class that interfaces between Unity's world coordinates and its own local system

Sentiment Analysis   June 2022
- The task was to create a program in C++ to determine whether a restaurant review from a list in a text file was positive or negative using probability theory
- Utilized a training set and Dirichlet distribution to assign positive and negative probabilities to words and compared against three test sets, validating 82.35% accuracy

Poetic Corner   February 2022
- The task was to create the back end for a poetry website using RESTful API Design
- Led a group of 4 in an agile development cycle, using Git and GitHub for version control
- Programmed HTTP methods in JavaScript for CRUD operations on a Mongo database created, run, and deployed using Docker with test script created in Postman to verify API functionality

SKILLS

Programming Languages
C++, C#, JavaScript, CSS, HTML
Tools
Unreal Engine 4/5, VS Code, VS 2019, Unity, Git/GitHub, Blender, OpenGL, Sony Vegas
Extracurriculars and Interests
Singing, Voice Acting, Video Editing, Digital Art, Guitar, Music Production