Peyton James Jones

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Objective

Languages: Seeking a game developer or software engineer position where I can use my skills along with other passionate developers to create something new and exciting

Skills

Languages: C/C++, C#, HLSL, Python, JavaScript, HTML

Technologies & Tools: Visual Studio, Git, Unity, Godot, Unreal, OpenGL, Docker, Aseprite, Blender, ImGui, ASIO, Box2D

Work Experience

UCSC, Santa Cruz Jan 2023 - March 2023

Reader/Tutor for Computational Media

- Critiqued students work submissions on game systems and interactions along with faculty to provide accurate and helpful feedback and grades

Education

University of California Santa Cruz Sep 2019 - Jun 2023

B.S. in Computer Science: Game Design ***GPA: 3.74***

Relevant Coursework: Object Oriented Programming, Linear Algebra, Data Structures and Algorithms, Computer Architecture, Game Design, Game Engine Graphics, Discrete Math

Project Work

Pyxis (Present): A multiplayer falling sand simulation built from the ground up in C++

- Developed a game engine written in C++ following many differing tutorials online, and altered the development to suit my needs
- Implemented ASIO's TCP & UDP networking by creating easy to use Client and Server classes, and a templated message system, allowing me to make the falling sand simulation multiplayer
- Implemented the Box2D Physics engine with the falling sand simulation by making pixellated rigidbodies, utilizing 3-skew rotation to preserve pixels during rotation, and engineered runtime deformation of the rigidbodies.
- Built a data-driven approach to custom elements in the simulation, allowing users to create custom reactions with probabilities, and tweak almost any elemental property using XML based data.
- C++, OpenGL, GLFW, GLAD, ImGui, ASIO, tinyXML2, Box2D, Poly2Tri, SPDlog, XML

Escape From Project E.L.E.V.A.T.E. (2023): I was the lead developer for 2D Grappling platformer in Godot

- Developed and tweaked the character controller and grappling mechanics by utilizing state machines in order to make the character feel good to control.
- Implemented team member's created assets, building scripts and levels out of them.
- Godot, GDScript, Game Design, Game Mechanics, Aseprite, Asset Implementation

Music Is The Way (2023): Worked with a small team to develop a procedural platformer in Unity with generative audio

- Implemented back and forth data transfer from Unity to Pure data to sequence generated audio based on active platform types, leading to an audio-interactive experience
- Created
- Unity, C#, Pure Data