BRANDON HESSLAU

GAMEPLAY AND SOFTWARE ENGINEER

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EDUCATION

DEPAUL UNIVERSITY
Chicago, IL

B.S. Computer Science
Concentration in Game Systems

2017 - 2021

SKILLS

C++, C#, Java, Python

Gameplay Programming / Engine Development

Project & Team Management

Unity 3D & Unreal Engine

3D Math & Graphics Programming

Version control systems (Git, P4V, etc.)

Game Tool Development

Technical Writing / Code Documentation

Organization & Communication

DEVELOPMENT EXPERIENCE

BUDDY SIMULATOR 1984 | 2019 - 2021
Not a Sailor Studios | PC, Switch, PS4, Xbox | Unity
- Developed smooth player movement and intuitive interaction behavior for custom 2D, 2.5D, and 3D character controllers.
- Created dialogue branching systems and story-based decision tracking.
- Designed dynamic turn-based combat systems, featuring distinctive character move sets.
- Implemented framework for effortlessly saving and loading game states.
- Collaborated closely with team members to ensure seamless integration of various components and gameplay elements.

MULLIGAN | 2021-2023
Not a Sailor Studios | Unity
- Developed advanced procedural level generation systems for interior and exterior world building.
- Designed innovative in-house room builder tool that integrated with the procedural generation systems.
- Created BT-based AI monster behavior that demonstrated clever techniques for hunting players, elevating the game's challenge and intensity.
- Integrated networking frameworks.
- Engineered custom player behavior with in-depth world interactions from hiding to searching.

ASEPRITE 3D PIPELINE TOOL | 2023
Visual Studio 2022 | C# & C++
- Built multithreaded 3D rendering system into Aseprite viewport for artists to integrate into their own workflows.
- Designed parsing systems for 3D model files .obj and .fbx.
- Engineered animation systems that process skinned mesh data from 3D model files.
- Developed shading systems with customizable render integrations (dithering, textures, specular, normal maps)

ANEKOM GAME ENGINE | 2018-2019
DePaul University | Visual Studio 2019 | C++
- Integrated OpenGL rendering, texture mapping, and 3D model importing.
- Built custom module system for modifying game object attributes.
- Created full level editor with seamless game object transformation editing.
- Added Game Object management and registration with memory recycling systems.
- Engineered collision and A* pathfinding systems.

OTHER WORK HISTORY

CODING COUNSELOR | 2020
Connected Camps
- Remotely taught children LUA coding using Minecraft as our environment.
- Developed immersive and educational programming curriculums.
- Communicated with parents and children to keep classes organized.