RYAN TORRES

GAME DEVELOPER

[Portfolio Link](#)
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TECHNICAL SKILLS

- C++, C#, HLSL
- DirectX11, Graphics Programming
- 3D Math
- Agile Work Environment, Sprint Planning
- Version Control

APPLICATIONS

- Microsoft Visual Studio
- GitHub
- CMake
- Unity
- Maya

PROJECT EXPERIENCE

Graffiti Tower Defense | Custom C++ Engine | Team-Project   February 2021 – Present

- Programmed the game's Input Manager, allowing per-key input from the player, tracking all mouse position information, and support for per-frame input and input over multiple frames
- Implemented a full raycast system that takes the mouse coordinate on the screen and allows interaction in the 3D world using Matrix and Vector math
- Using various 3D math concepts, added steering behaviors to the AI of the enemies, making them curve around the set nodes, rather than robitically moving from node to node
- Utilized the DirectX Audio API to program an audio system that plays, pauses, loops, and can edit sounds and music tracks
- Created an FBX Exporter to take in FBX files and output a binary file that allows for importing of models, animations, and textures
- Preserved the project's version through GitHub, using TortoiseGit

DirectX Graphics Project | C++ | Solo-Project   November 2020 – December 2020

- Loaded in several pre-made and personal FBX models and textures which included several planets, a space station, a spaceship, and a skybox to create an interesting scene
- Used Matrices, Vectors and Quaternions to make the planets orbit around a central sun, as well as spin on their own axis
- Used HLSL shaders to create spectral reflections, alpha transparency, alpha blending, and glowing emission textures
- Implemented a FPS-style camera to move about the scene
- Made several light sources including: Directional, Point, Spotlight, and Ambient
- Created a second viewport in order to provide a camera-fixed minimap in the corner
- Used CMake to generate the project files for editing and debugging

EDUCATION

Full Sail University, Bachelor of Science in Game Development   June 2021
Winter Park, FL