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**RYAN TORRES**  
**GAME DEVELOPER**

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## TECHNICAL SKILLS

- C++, C#, HLSL
- DirectX11, Graphics Programming
- Quaternion, Matrix and
- Vector Math
- Agile Work Environment, Sprint Planning

## APPLICATIONS

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

## PROJECT EXPERIENCE

**Game Developer** | Graffiti Tower Defense

February 2021 – Present

- Using Matrix and Vector math, implemented a full raycast system that takes the mouse coordinate on the screen and allows interaction in the 3D world
- Used 3D Quaternion and Vector math to apply steering behaviors to make enemies flow along a set path
- Used the DirectX Audio API to program an audio system that plays, pauses, loops, and can edit sounds and music tracks
- Programmed the game's Input Manager, which allowed every key to be used as potential input
- 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

**Graphic Programmer** | DirectX Graphics 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 blending, etc.
- 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**  
Winter Park, FL | **3.96 GPA**

June 2021

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