BRAXTON DEHATE

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SKILLS

LANGUAGES
- C/C++ (4 years)
- DirectX 11 (1 year)
- OpenGL (1 year)
- C# (1 year)
- Linux/Windows API (Familiar)
- Intel x86 Assembly (Familiar)

TOOLS / ENGINES
- Visual Studio
- Make
- Git/SVN
- Unity
- Valgrind/DrMemory
- React/Redux

ETC.
- Software Architecture
- Multi-discipline Cooperation
- Curves and Surfaces
- Linear Algebra and Calculus
- Algorithm Analysis
- Matrix Transformations

EXPERIENCE

MAY 2020 - JULY 2020

SOFTWARE DEVELOPMENT ENGINEER INTERN AMAZON WEB SERVICES

Learned to work in Amazon's complex development ecosystem and utilized a large stack of technologies in creating a web application to help a team serve their clients better. Participated in a professional Scrum sprint cycle on a small team and maintained strong communication while working remotely.

ACADEMIC PROJECTS

SOLO PROGRAMMER · SEPTEMBER 2020 – DECEMBER 2020

TERRAIN GENERATION AND EROSION DEMO UNITY TECH DEMO

Created a tech demo demonstrating procedural terrain generation and hydraulic erosion techniques. Iterated on shaders and applied user feedback to create a visually appealing product. Developed tools within Unity for easier content generation and control of the terrain generation algorithm.

GRAPHICS LEAD · NINE PERSON TEAM · SEPTEMBER 2019 – APRIL 2020

TURBOENGINE 3D XBOX/PC GAME ENGINE

Led a team of three graphics programmers in creating a performant DirectX 11 graphics engine in the UWP environment containing industry standard features, such as PBR materials, screen space reflections, and GPU driven particles. Personally developed a flexible shader authoring system using shader reflection, and a Bezier curve based cinematic system.

GRAPHICS/TOOLS PROGRAMMER · THIRTEEN PERSON TEAM · SEPTEMBER 2018 – SEPTEMBER 2019

ADVENTURE SLIME: QUEST FOR THE BOUNCY MUSHROOM ROOM 2D PUZZLE PLATFORMER

AVAILABLE ON STEAM

Developed a graphics pipeline using OpenGL which supports ImGui, Spine, Tiled, and custom sprite objects. Also implemented support for JSON files exported by a third-party level editor Tiled, added a structured exception handler utilizing Windows mini dumps, and wrote a dynamic acceleration based camera system.

EDUCATION

BS CS RTIS: REAL-TIME INTERACTIVE SIMULATION · EXPECTED GRADUATION APRIL 2021

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