EVAN P. GRAY

GRAPHICS PROGRAMMER

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SKILLS

Languages: C++, C, C#, GLSL, Slang
Graphics APIs: OpenGL, Vulkan
Tools: NVIDIA Nsight Graphics, RenderDoc , Visual Studio, Git/GitHub, Unity
General: Debugging, Optimization, Organization, Collaboration

PROJECTS

Sole Graphics Programmer   Solo Project

RayTracer - 3D Hardware Accelerated Raytraced Lighting Engine

- Implemented hardware accelerated raytracing through the Vulkan API's acceleration structures to render high-fidelity 3D models in real time.
- Developed features like shadow rays, transparency, recursive reflections, and normal mapping.
- Integrated a Physically Based Rendering lighting model to produce realistic surface materials.
- Utilized NVIDIA Nsight Graphics' toolkit to debug and optimize raytracing code.

Graphics Programmer, Assistant Producer   9 Member Team

NiteLite - 3D Custom Game Engine in C++

- Collaborated with another developer to implement real-time 3D object rendering using the Vulkan API that can handle 1000's of complex meshes above 200fps.
- Implementing custom terrain creation using tessellated heightmaps to allow designers to handcraft engaging maps that are deformable during runtime.
- Led the team in developing a user story of the final product, ensuring a cohesive understanding of project outcomes, and successfully identified more than 10 unplanned tasks.
- Worked with fellow founding members to interview and recruit 3 new hires, building a team capable of achieving project goals within set timelines.

Sole Graphics Programmer, Producer   7 Member Team

KnightLight - 2D Puzzle Platformer in a Custom C++ Game Engine

- Developed a custom 2D lighting system in OpenGL enabling designers to implement light-based mechanics with support for dozens of dynamic, customizable and real-time lights.
- Increased frame rate by 1000% by implementing multithreading through compute shaders into the lighting system, allowing for hundreds of thousands of rays per frame.
- Led a cross-functional team of 7 members and resolved workflow issues throughout the project.
- Collaborated with other programmers using Visual Studio's memory and performance profilers to debug and optimize performance-critical code.

Lead Programmer, Systems Developer, Scrum master   5 Member Team

Sprout Town - 2D Top-Down Base Building Strategy Game in Unity

- Managed communication among a team of designers, programmers, and artists to ensure technology supported project goals while utilizing Scrum to keep the team on track.
- Utilized Unity's graphical tools to create effects that visually represent the player's impact and progress toward goals.

EDUCATION

**Bachelor of Science in Computer Science
in Real-Time Interactive Simulation**

DigiPen Institute of Technology

04/2026
GPA: 3.99