Hannah Rogers

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OBJECTIVE

Passionate and collaborative software engineer with credits on two shipped and one unreleased games. Seeking graphics engineering roles, focusing on real time computer graphics and rendering.

WORK EXPERIENCE

Raven Software, Activision, Middleton, WI, *Associate Rendering Engineering* July 2023 - January 2024

- Led development of new shader feature and its integration into the 3D graphics software to streamline its use using C++ and QT
- Worked closely with artists to introduce and assist with the application of the new feature
- Refactored closely coupled code in order to make prior functions reusable and to avoid redundancy
- Collaborated with graphics and tools teams across studios on overlapping features
- Participated in weekly manual play testing, provided feedback, and reported bugs for Modern Warfare III

Raven Software, Activision, Middleton, WI, *Rendering Software Engineering Intern* May 2022 - August 2022

- Identified requirements for a new feature by communicating within and across teams
- Created a new material feature using HLSL and C++ and implemented the plumbing to pass information from the frontend to the shader
- Manually tested and debugged code using the in-house asset production engine
- Used and furthered 3D math and optimization skills in a real-time rendering engine
- Participated in weekly manual play testing, provided feedback, and reported bugs for Modern Warfare II

Intel, San Francisco, CA, *Graphics Software Engineering Co-op* January 2021 - July 2021

- Contributed to the development of the broadcast and coaching products on the Olympics Technology Group
- Gathered historical data from 6 sports and wrote scripts using Python, C++, and Unity to test and improve the graphics capability of data visualization application and the broadcast pipeline's data generation
- Collaborated with teammates to implement an algorithm for smoothing skeletal data gathered from motion capture to generate an accurate 3D model and animation

PROJECTS

Personal Graphics Engine October 2023 - Present

- Building a custom 3D graphics engine using C++, OpenGL, and GLSL
- Expanding graphics and 3D math skills by implementing model loading and various lighting techniques

Interactive Bee Scene*, CS5310: Computer Graphics* December 2021

- Utilized C++, OpenGL, SDL, and GLSL to create and render a scene of bees in a honeycomb space
- Implemented mouse and key event user navigation
- Developed an OBJ Wavefront parser, implemented shading, normals, framebuffers, and blending

COMPUTER KNOWLEDGE

Languages: C++, C#, GLSL, HLSL, OpenGl, WebGL, Java, Python, JavaScript, TypeScript, jQuery, React, Vue, Html/CSS, SQL, PHP, jUnit, Jasmine, Chai

Systems: Windows, MacOS, Android, Linux

Software: Unity, Unreal Engine, Perforce, GIT, IntelliJ, Eclipse, Visual Studio Code, Android Studio, PostgreSQL, SVN, Maya, Blender, Houdini, Solr, Adobe Creative Suite

EDUCATION

NORTHEASTERN UNIVERSITY, Boston, MA

Khoury College of Computer Sciences 2017 - 2023

Master of Science degree in Computer Science (Magna Cum Laude) *May 2023*

Bachelor of Science degree in Computer Science and Media Arts (Summa Cum Laude) *May 2022*