Hunter Fox

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EDUCATION

Fanshawe College
Ontario College Graduate Certificate, Advanced Programming Game Development
Sept. 2023 - April 2024
Western University
London, ON
Bachelors of Science in Computer Science, with Honours
Sept. 2018 - May 2022

PROJECTS

Game Engine | C++, GLSL, Git

Sept. 2023 – Present

- Developed a game engine in C++ using OpenGL and GLFW
- Implemented an Entity Component System with efficient memory usage

Softbody Physics Demo $\mid C++, GLSL, Git$

Feb 2024 - March 2024

- Implemented soft body physics using verlet integration in my game engine
- Implemented collision detection and response between soft body entities and rigid entities utilizing AABBs
- Utilized verlet integration tto simulate a rope bridge

FBO Rendering Demo | C++, GLSL, Git

Feb 2024 - March 2024

- Implemented rendering to an off screen buffer in my game engine
- Applied FBO texture to models in scene to simulate external camera footage
- Implemented 2nd pass effects on these textures: static, screen tear
- Utilized an imposter and discard texture to simulate fire

Multithreading Demo | C++, GLSL, Git

Feb 2024 - March 2024

- Demonstrated the benefits of multithread in my game engine
- Utilized multiple threads to significantly speed up physics calculations
- Managed threads data access to avoid race conditions and maintain data accuracy

TECHNICAL SKILLS

Languages: C++/C, GLSL, Python, Java, SQL(mySQL)

Developer Tools: Git, VS Code, Visual Studio, Notepad++, MeshLab, Blender

Libraries: GLFW, GLM, FMod, Assimp, STB

EXPERIENCE

Sales Associate / Service Advisor

March 2020 – Present

To Wheels Bike Shop

London, ON