

Qualifications and Key Competencies

- Advanced experience (~ 4 years) with programming languages C++, C, and C#
- Moderate experience (~2.5 years) with Vulkan Graphics API and GLSL
- Minor exposure with programming languages Cg, HLSL, Python, HTML, and Java

Education

Champlain College, Burlington, VT

3.5 GPA

Pursuing a **B.S. Degree in Game Programming, Minor in Mathematics**

Anticipated Graduation: May 2021

Relevant Coursework

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|--|---|---|
| • Game Architecture/
Game Engine Design
and Implementation | • Intro to Modern Graphics /
Intermediate Graphics Programming/
Advanced Realtime Rendering | • Real-Time
Debugging |
| • Game Networking | • Game Production I / II / III | • Game Physics |
| • AI for Games /
Advanced Game AI | • Animation Programming | • Calculus I / II / III
and Linear Algebra |

Technical and Communicative Skills

- Experience building a renderer from the ground up using Vulkan SDK
- Familiar with Visual Studio Enterprise IDE for use in various programming languages
- Developed C++ code, HLSL shader plugins, and technical art for Unreal Engine 4
- Developed C++ code for CryEngine 5 for Advanced AI experiments
- Developed C# code and C++ plugins for Unity Game Engine
- Developing C++ code for NVidia Falcor graphics library to create a Ray Tracing Denoiser
- Ability to model in both Blender and Autodesk Maya
- Worked and Participated in SCRUM based team environments for entirety of university
- Determined to have a conflict-free environment to not let production come to a halt
- Produced a game alongside 13 other team members with over 70,000 downloads

Released Works

“Fission Editor”

Freelance (Personal Project)

Graphics Engineer, Graphics Programmer, Animation Programmer

February 2019 to Present

- Sole Developer of this ECS based Editor created using Vulkan SDK backend
- Formed two separate renderers that share instance properties
- Developed Scene Structure with Options Menu to Add or Remove Objects
- Programmed GLSL shaders for Phong lighting and Toon lighting
- Created Keyframing System with Clip Controllers and Implemented Skeletal Creation and Animation

Link: <https://github.com/Colton-Soneson/FissionEditor>

“Forkdrift”

Developer: *Endless Suffering*

Lead Graphics Programmer, Vehicle Programmer, Environmental Lighting, etc.

March 2020 to July 2020

- Coded adjustable Cg shaders for artists
- Developed physics and constraints for forklifts in game
- Handled lighting of environment and Light Weight Render Pipeline setup

Link: <https://store.steampowered.com/app/1318940/Forkdrift/>

Work Experience

iD Tech Camps and OPL

CT and Online

Tech Coordinator/ Instructor

June 2019 to December 2020

- Taught Unity, C#, Python, Java, Maya, and Blender to students whose ages range from 9 to 19
- Learned important communication skills required when teaching coding or 3D modelling