Colton Soneson
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Portfolio: https://colton-soneson.github.io/

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 / HLSL
- Minor exposure with programming languages DirectX, Cg, Python, HTML, and Java

Education and Merit

Champlain College, Burlington, VT 3.54 GPA
B.S. Degree in Game Programming, Minor in Mathematics Graduated Cum Laude, May 2021

Champlain College Dean's List Fall 2018, Spring 2019, Spring 2020
Champlain College Outstanding Programmer Award Spring 2021

Relevant Coursework

- Game Engine Design and Implementation / Game Architecture
- Game Networking
- AI for Games / Advanced Game AI
- Data Structures & Algorithms
- Intro to Modern Graphics / Intermediate Graphics Programming/ Advanced Realtime Rendering
- Game Production I / II / III
- Animation Programming
- Calculus I / II / III and Linear Algebra
- Real-Time Debugging
- Game Physics
- Console Programming
- Discrete Mathematics

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 80,000 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/ HLSL 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 Connecticut 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