Colton Soneson

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Burlington, VT

Email: colton.soneson@gmail.com

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

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Education and Merit

Champlain College, Burlington, VT 3.5 GPA

Pursuing a ***B.S. Degree in Game Programming, Minor in Mathematics*** Anticipated Graduation: May 2021

Champlain College Dean's List Fall 2018, Spring 2019, Spring 2020

Relevant Coursework

- Game Engine Design and Implementation / Game Architecture
- 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
- Console Programming
- Data Structures & Algorithms
- Calculus I / II / III and Linear Algebra
- 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

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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