Ewan Burnett

PROGRAMMER

ABOUT ME

I'm a dedicated Computer Scientist, with a love for learning. Passionate about delivering efficient, well-engineered software for use in both Real-time and offline simulation. As a Reliable developer, I'm looking to contribute my skills and creativity in professional development within the Computer Graphics industry.

CONTACT

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EwanBurnettSK@Outlook.com

EwanBurnett.Github.io (Portfolio)

Linkedin.com/in/EwanBurnettSK

Github.com/EwanBurnett

LANGUAGE PROFICIENCY

- C/C++
- Rust
- C#
- Python
- Lua
- BASH
- HLSL
- GLSL
- ISPC
- X86 Assembly

API KNOWLEDGE

- Vulkan
- DirectX 12
- DirectX 11
- OpenGL
- PS5 API

SOFTWARE COMPETENCY

- Unreal Engine 5
- Unity Engine
- Visual Studio
- Jira
- Microsoft Office Suite

COMMUNICATION

- English (Native)
- Japanese (JLPT N4)
- German (GCSE)

MASTER'S THESIS – CASCADED REAL TIME GLOBAL ILLUMINATION

- Implemented in Vulkan with C++ 17, for Windows, Linux and Android.
- Exploratory research into the viability of simulating Global Illumination without Hardware accelerated Ray Tracing, for use on lower-end hardware.
- Utilizes Spherical harmonics-based Irradiance Probes to encode the environment's luminance in a hardware efficient manner.

KEY SKILLS

Computer Architecture

Strong knowledge of how Computer Hardware works; From Assembly Language to GPU Architecture.

Parallel Software Development

Adept at the development of parallelized software using SIMD, Multithreading and GPU Compute.

Graphics Programming

Familiarity with Rasterization and Ray Tracing Pipelines for use in Real-time Rendering, alongside the fundamental theory driving Computer Graphics.

Cross Platform Development

Practical experience in developing Cross-platform Software for Windows, Linux and Sony's PlayStation 5™.

Learned and Adaptable

I'm driven by a strong desire to learn; and am subsequently able to quickly familiarize myself with new development environments and codebases.

Game Engine Architecture

Proficient in the development of the underlying subsystems driving modern Game Engines; From Simulation to Graphics.

Agile Development

Successfully developed software in Agile teams, using software such as Trello to delegate and manage tasks within sprints.

Version Control

Proficient in the use of Git for Software Version Control and organisation.

EDUCATION

MComp Computer Science for Games | 2:1

Sheffield Hallam University

September 2020 – May 2027

- Advanced Game Development with C++
- PlayStation 5™ Engine Development
- Real-Time Rendering with DirectX 11
- Linear Algebra and Calculus for 3D Graphics

BTech Games Technology | DDM

Confetti Institute of Creative Technologies

September 2018 – June 2020

- Foundational Game Design and Development Principles
- Scripting Behaviour with Unity C# and Unreal Engine 4 in C++
- 3D Asset creation pipeline with Autodesk Maya

References Available on Request