AJ WEEKS

Graphics/Engine Programmer

PERSONAL BACKGROUND

I'm a well-rounded game developer with a strong interest in **graphics**, **game engine architecture**, and **optimization**. I'm fascinated by understanding how systems work, and how they can be improved.
I'm keen on working within a small group of equally passionate individuals on ambitious projects.

I'm currently based out of Brighton, UK, but willing to relocate.

PROJECTS

Real-time Global Illumination *(2019-present)*
Co-author of (not yet published) academic paper describing novel dynamic GI technique. Responsible for majority of implementation in production.

Sophisticated personal game engine *(ongoing)*
Implemented detailed C++ game engine with Vulkan backend and many engine features.
See more: *github.com/ajweeks/FlexEngine*

Raymarching workshop *(2018)*
Covered basics of raymarching rendering technique to colleagues. See more:
github.com/ajweeks/raymarching-workshop

Programming Intro Course *(2017)*
Walked new students through the fundamentals of programming over a two day period using the processing programming language.

GET IN TOUCH

📞 +44 7840 595 932

✉ contact@ajweeks.com

🌐 ajweeks.com

github.com/ajweeks

PROFESSIONAL EXPERIENCE

Electric Square - Game Developer *Feb 2018 - Present*

Assassin's Creed VR (2020-current) **(unannounced platform)**
- Implemented an optimized multi-threaded facial animation system, including editor tools, serialization, and runtime
- Worked tightly with animators

Demolition Racing (2019-2020) **(macOS, iOS, tvOS)**   Unity
- Applied CPU & GPU optimizations across all platforms
- Implemented performance profiling and analysis tools
- Implemented rendering features, including a novel global illumination system, working tightly with lighting artists
- Developed in-game debug UI system

Forza Street (2018-2019) **(Windows, Android, iOS)**   UE4
- Applied CPU optimizations & reduced loading times
- Implemented various engine features & fixes
- Improved car shading code (supporting clear coat layer)

SKILLS

- Experienced in taking ideas from prototyping phase to polished, shipped stage, as well as in maintaining existing systems and finding and fixing bugs
- Strong understanding of modern CPU & GPU architectures and modern graphics APIs (Vulkan)
- Experienced developing for Windows, linux, macOS, tvOS, iOS, and Android
- Comfortable using: C++, C#, Python
- Beginner in: Rust, shell, and keen on learning more
- Strong understanding of 3D mathematics
- Keenly interested in open source development (GitHub)

EDUCATION

Bachelor of Digital Arts and Entertainment
Game Development Major - Howest University   2015 - 2018

Primary topics studied include: Graphics programming, AI programming, Applied Math & Physics, Unreal Engine 4, Unity Engine, High & Low Poly Modeling, PBR Texturing, Skeletal Rigging, Photoshop & Illustrator.
Graduated Magna Cum Laude.