

Cameron Blyth Fleming

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Gameplay Programmer

www.cf-techart-prog.co.uk

Professional Summary

Gameplay Programmer with over 7 years of experience architecting core mechanics, interactive systems and AI behaviours in **C++** and **C#** in **Unreal Engine** and **Unity**. Proven track record of designing data-driven gameplay flows, custom pathfinding systems, and **VR** physics for **commercial titles** and advanced **visualisation projects**. Adept at optimization and cross-discipline collaboration. Expert at translating high-level design concepts into robust, maintainable code.

Technical Skills

- **Languages:** C++, C#, Python, JavaScript
- **Engines:** Unreal Engine 4/5, Unity
- **Systems:** Gameplay, Enemy AI (Pathfinding/Senses), UI, Networking, VR Physics
- **Art & Tools:** Blender, Maya, Krita, GIMP, Rigging, Tool Writing, Animation, Modelling, Photogrammetry

Professional Experience

Gameplay Programmer | *Athena Worlds (Remote)* | **2025 – 2026**

- **Project Xeno (Unreal Engine 5):**
 - Programmed core mechanics for an unannounced survival horror title, including enemy AI behaviours, custom sense tracking, and dynamic pathfinding.
 - Engineered high-immersion diegetic crafting/repair systems and menu UI.
 - Developed the quest system architecture and implemented the overarching gameplay flow.
 - Collaborated cross-discipline with art and design teams to refine world feel and iterate on mechanics.
 - Developed base and inherited Animation classes for enemies and player including implementing driven procedural weapon recoil and aiming.

Freelance Software Developer | *Remote* | **2022 – 2025**

- **Lawn Mowing Simulator VR (Unity) – Skyhook Games Ltd:**
 - Served as one of two primary gameplay programmers on a commercial VR title for Meta Quest 2 and 3.
 - Owned development across physics interaction, VR gameplay mechanics, UI layout, audio, save systems and achievements.
- **Animation Software Developer (Unreal Engine 4) – Celestial Labs Ltd:**
 - Translated legacy drone show software from C# to high-performance C++ and Blueprints.
 - Developed additional features to further improve drone show planning capabilities.
 - Built custom Unreal project to visualise, simulate and create bespoke drone shows along with custom tools to output data for live show deployment.

Games Development Researcher | *3DVisLab, University of Dundee (Scotland)* | **2018 – 2022**

- **IVILO Project (Unreal Engine 4):**
 - Acted as Lead Developer for a DASA-funded UK defence and security innovation project.
 - Architected a networked, multi-user VR simulation environment designed for complex live UAV operations.
- **Ministry of Defence (MoD) Project (Python):**
 - Automated complex 2D/3D art pipelines by scripting custom tools for open-source software like Blender and Krita.
 - Authored adaptable shader networks and programmatically managed layered image creation tools.
- **ShipwreckVR (Unreal Engine 4):**
 - Co-developed a high-fidelity VR point-cloud visualization showcasing a WW1 shipwreck.
 - Successfully deployed the build as a live interactive public exhibit at the Stromness Museum.

Education

- **Professional Masters (MProf) in Games Development** | University of Abertay, Dundee | *2018*
- **Bachelor of Science (with Honours) (BSc (Hons)) in Computer Games Technology** | University of Abertay, Dundee | *2017*

Personal Information

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