

Qaveem Ahmad

Game Developer

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Portfolio: sites.google.com/view/qaveem-ahmad

PROFESSIONAL SUMMARY

Final-year Computer Games Development student at Liverpool John Moores University combining four years of Unreal Engine experience with robust C++ programming skills and a complete understanding of the game development lifecycle. Proven ability to take projects from initial concept and documentation through prototyping, iterative development, and polished delivery – including serving as core developer on a full-length escape game. Equally comfortable writing performance-critical C++ and crafting player-facing Blueprint systems, with strong Agile and Scrum discipline using Jira and Perforce in multi-discipline teams.

TECHNICAL SKILLS

- Languages: C++, Java, HTML, CSS, PHP, HLSL (shader programming).
- Engines & Frameworks: Unreal Engine 4 & 5 (Blueprints + C++), SFML, DirectX 11, Hieroglyph.
- Development Practices: Object-Oriented Programming, design patterns, data-driven design, level blockout and polish, gameplay prototyping.
- 3D Mathematics: Vector maths, matrix transforms, quaternions, equations of motion, A* pathfinding, collision and physics.
- Tools & Workflow: Perforce, Git, Jira, Scrum boards, sprint planning, Visual Studio debugging, iterative playtesting.
- Cross-Platform: Windows development primary; familiarity with macOS development environments and Linux for local game server hosting.

GAME DEVELOPMENT PROJECTS

AI Adaptive Storytelling System – Unreal Engine 5, LLM Integration Final Year Dissertation Project

- Developed an experimental adaptive storytelling system in Unreal Engine 5 integrating the Gemma2:2b LLM to dynamically generate narrative progression and player dialogue options in real time.
- Created a branching narrative framework where player choices influence AI-generated story direction, producing unique gameplay experiences and emergent narrative outcomes.
- Implemented gameplay systems enabling NPC-to-LLM communication and dynamic response generation, exploring practical applications of AI-assisted storytelling in games.
- Researched the strengths and limitations of LLM-driven narrative design, focusing on player agency, replayability, and maintaining coherent gameplay flow.

Beyond the Border – Core Developer, Unreal Engine 5

Team Project

- Delivered core gameplay systems for a polished escape-themed game, architecting interaction logic, player mechanics, and progression using Blueprint visual scripting.
- Worked within an Agile team using Scrum boards, hitting milestone deadlines while iterating on player feedback from internal playtests.

3D Puzzle Game – Unreal Engine, C++

University Project

- Programmed four interconnected gameplay mechanics in native C++, with an advanced puzzle system as the central pillar featuring state tracking and trigger sequencing.
- Used Blueprint-derived subclasses on top of C++ bases to expose tuning parameters to designers without recompilation.

HLSL Solar System – Hieroglyph Framework

University Project

- Built an advanced 3D scene featuring a day/night cycle, procedural terrain, static mesh loading, and custom lighting through HLSL vertex and pixel shaders.
- Applied 3D mathematics to orbital motion and camera transforms, demonstrating fluency in low-level graphics programming.

VR Acrophobia Experience – Unreal Engine VR Gameplay Systems

University Project

- Developed gameplay systems for a VR acrophobia experience in Unreal Engine, implementing immersive mechanics, responsive interactions, and gameplay features across two distinct levels.
- Integrated haptic feedback and player responsiveness systems to enhance immersion, environmental tension, and overall VR gameplay experience while collaborating within a multidisciplinary team.

Physics & A* Pathfinding – C++

University Project

- Implemented a user-controlled motion system calculating displacement and acceleration per-frame from equations of motion.
- Built an AI agent using the A* algorithm to navigate between nodes, demonstrating practical application of game AI research.

SFML Racetrack Scene – C++

University Project

- Developed an animated 3D racetrack scene in SFML featuring a moving car, animated trees, and dynamic lighting, built entirely in C++.
- Used trigonometry and vector maths to drive smooth object animation and camera behaviour.

PROFESSIONAL EXPERIENCE

Assistant Team Manager – UFA Marketplace

Jun 2021 – Present

- Lead a warehouse fulfilment team, overseeing order accuracy and deadline-driven dispatch while coordinating workflow through ticketing-style task management.
- Built resilience and adaptability managing shifting demand patterns – skills that translate directly to iterative game development cycles.

EDUCATION

Liverpool John Moores University

2023 – Present

BSc (Hons) Computer Games Development – Expected 2026

The Studio Sixth Form

2021 – 2023

EPQ – Grade A | Level 3 Extended Diploma in Games, Animation & VFX – High Merit

The Academy of St Francis of Assisi

2019 – 2021

GCSEs incl. Mathematics (Grade 7) | BTEC Digital Technology – Distinction*