

Muhammad Abbas Hussain

abbas23hussain@gmail.com: Email

+92-320-4056841: Phone

[linkedin.com/in/abbas23hussain](https://www.linkedin.com/in/abbas23hussain): LinkedIn

github.com/abbas23hussain: GitHub

Professional Summary

Creative and results-driven Game Developer with 5+ years of experience in full-cycle game development using Unreal Engine and Unity. Proven expertise in C++, C#, gameplay mechanics, multiplayer systems, and optimization for PC and mobile platforms. Adept at Agile/Scrum workflows, version control (Git/Perforce), and cross-functional collaboration with artists and designers. Passionate about creating immersive player experiences.

Core Competencies

Unreal Engine 4/5, Unity3D, C++ / C# / Blueprints, Gameplay Programming, Multiplayer Networking (Steam, EOS, Photon), Game Physics / AI / Animation Systems, Performance Optimization, Git / Perforce, Agile / Scrum, Shader Programming, VR/AR Development, Mobile & PC Game Deployment

Technical Skills

Languages: C++, C#, Python, JavaScript

Engines: Unreal Engine 4/5, Unity 2019+

Tools: Git, Perforce, Jira, Trello, Visual Studio, Rider

Platforms: Windows, Android, iOS, Oculus, PlayStation, Xbox

Graphics: Shader Graph, HLSL, Niagara, Lumen

Audio: FMOD, Wwise

Professional Experience

Senior Game Developer

GR Sons, Manchester (Remote) — Feb 2025 – Present

Technologies: Unreal Engine 5, Blueprints, C++, EOS SDK, Steam SDK

- Developed and shipped a plugin for Unreal Engine 5 that utilizes UPnP and Port Forwarding for Server-Client connectivity.
- Developed a multiplayer FPS game using Unreal Engine 5 and Steam.
- Designed and implemented advanced AI behavior trees for enemy characters.
- Optimized rendering and network replication, increasing performance by 30% on mid-tier hardware.
- Integrated Steam SDK for achievements, matchmaking, and leaderboards.

Senior Game Developer

Magic Media, Dublin (Remote / Contract) — Jul 2024 – September 2024

Technologies: Unreal Engine 5, Blueprints, C++, Perforce

- Collaborated with a team of 6 developers using Perforce version control on a fast-paced contract project.
- Contributed to gameplay programming, bug fixing, and asset integration in *Revenge*, a first/third-person shooter now available on the Epic Games Store.
- Implemented modular Blueprints and C++ systems to support player abilities and dynamic level interactions.
- Ensured efficient collaborative workflows by maintaining clean commits and performing regular code reviews.
- Delivered features on tight deadlines while maintaining Unreal coding standards and best practices.

Game Developer

QBit Technologies, Palto Alto, CA (Remote) — Jul 2022 – Jan 2025

Technologies: Unity 2020+, C#, Photon PUN 2, VR, Blockchain

- Collaborated in a multi-disciplinary team to design, develop, and deploy VR applications across historical, industrial, and metaverse contexts.
- Implemented interactive gameplay systems, VR mechanics, and optimization for Oculus and PC platforms.
- Used GitHub for source control in an Agile development pipeline with weekly sprint reviews.
- Interfaced closely with artists, designers, and blockchain engineers to integrate voice acting, dialogue systems, and token-based economies.

Junior Game Developer

Frag Games, Lahore — March 2020 – April 2022

Technologies: Unity3D, C#, Unreal Engine 4, WebGL, Mobile Development, Game Design

- Designed and implemented core gameplay mechanics and minigame loops for a large-scale educational gaming platform used in U.S. schools.
- Developed interactive reward systems tied to dynamic QA modules that reinforced learning through gameplay progression.
- Contributed to the development and optimization of simulation-based experiences in Unreal Engine.
- Built and tested hyper-casual mobile games under tight iteration cycles, focusing on user retention and monetization KPIs.
- Assisted in porting a legacy Flash-based browser game to Unity WebGL, adapting systems and assets for modern web deployment.
- Collaborated with designers and QA testers in Agile sprints; maintained clean version control practices using Git.

Education

BS Computer Science

National University of Computer and Emerging Sciences (FAST-NUCES) — 2016–2020

Projects

◆ The August Choice – Rome at Crossroads

Historical VR Simulation / Unity

- Developed a role-playing VR experience where the player acts as a Roman senator deciding whether to support Augustus (Octavian).
- Implemented dialogue trees with real-time voice acting, dynamic decision-making, and interactions.
- Built historically accurate reconstructions of Curia Julia, Temple of Caesar, Temple of Pollux, and surrounding forums.

◆ VR Training Simulator – Danieli Automation

Industrial Training VR / Unity

- Created a 1:1 scale VR simulation to train users on replacing server components and navigating technical workflows.
- Simulated physical interactions such as unscrewing bolts, flipping switches, and operating forklifts using VR motion controllers.

- Prioritized performance, procedural flow, and realism for enterprise-grade deployment.

◆ **VR City – Blockchain Metaverse**

Web3 Metaverse / Unity + Polygon Blockchain

- Built core gameplay and interaction systems for a metaverse with avatar customization, land ownership, and in-world shopping.
- Integrated a tokenized economy powered by VR City Token (Polygon), smart contracts, and retail mechanics.
- Contributed to land parcel systems, UI/UX flow, and blockchain integration.

◆ **Boddle Learning**

3D EdTech Platform / Unity

- Designed arcade-style minigames that reward players with gameplay powerups for answering questions correctly.
- Supported gameplay-loop design, student progression tracking, and QA-module integration.
- Deployed in classrooms across Kansas with over 1,000 students reached.
- [Available on Web](#)

◆ **MyWhoosh**

Sports Simulation / Unreal Engine 4

- Contributed to gameplay integration and interaction logic for a high-fidelity cycling companion app.
- Assisted with UI/UX polish and system-level debugging.
- [Available on multiple platforms](#)

◆ **Hyper-Casual Mobile Game Prototypes**

Mobile Arcade Games / Unity3D + Voodoo

- Developed and iterated on multiple hyper-casual titles with short gameplay loops and minimal UI.
- Focused on user retention metrics, ad placement optimization, and fast publishing pipelines.

◆ **Asterix and Friends**

Flash to WebGL Port / Unity3D

- Helped migrate a Flash-based multiplayer browser game to Unity WebGL.
- Solved rendering and input compatibility issues, improved performance, and ensured browser stability across platforms.
- [Available on Web](#)

◆ **Revenge**

Multiplayer Shooter / Unreal Engine 5

- Worked as part of a 6-developer team using Perforce to deliver a first/third-person multiplayer shooter.
- Implemented gameplay systems and contributed to replication, bug fixes, and polish.
- [Available on Epic Games Store](#)

◆ **V2V Plugin – Unreal Engine 5**

UE5 Editor Plugin / C++ + Blueprint Integration

- Developed a custom plugin for Unreal Engine 5.5 that allows seamless version-to-version migration of content folders and Blueprint assets.
- Built C++ tooling for scanning asset dependencies, copying project directories, and updating engine references.
- Enabled developers to upgrade Unreal project content from older versions (e.g., 5.0 → 5.5) with minimal manual adjustment.
- Implemented UI integration within the Content Browser using Slate and Editor Utility Widgets.
- Provided source and install instructions via GitHub, designed for team adoption.
- [GitHub Repository](#)

◆ **MetaHuman Cinematic Showcase**

Real-Time Character Presentation / Unreal Engine 5 + Lumen + Nanite

- Created a high-fidelity cinematic scene using MetaHuman characters to demonstrate realistic facial animations, detailed hair/groom systems, and dynamic lighting setups.
- Optimized Lumen reflections and Nanite geometry to maintain real-time performance while achieving film-quality visual output.
- Designed camera cuts, lighting rigs, and animation triggers to highlight character expression and realism in close-up shots.
- Delivered as part of a client project aimed at pitching next-gen character fidelity for marketing and film previsualization.
- [Watch Video Showcase](#)

◆ **FitPicSimulator – Interactive Pose System**

Inverse Kinematics & Animation Control / Unreal Engine 5

- Developed an experimental system allowing users to reposition a character's limbs by interacting with on-screen spheres, mimicking posing in fashion or fitness apps.
- Implemented Inverse Kinematics (IK) using Unreal's Full Body IK and FABRIK solvers to allow fluid, real-time body manipulation.
- Integrated Blueprint-driven animation logic to blend between idle poses and user-adjusted limb positions without breaking skeletal constraints.
- [Watch Video Demo](#)