

Abdul Mateen Khan

Senior Unity Engineer

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Summary

Senior Unity Engineer with 7 years of experience shipping commercial titles across **Android/iOS , PC/Steam, Nintendo Switch, PS4/PS5, Xbox, WebGL, and Meta Quest VR**. Specialised in **gameplay systems architecture, combat and AI systems, cross-platform performance optimisation, and multiplayer/backend integration (Photon, Unity Netcode, Azure PlayFab)**. Proven track record of owning technical delivery from prototyping through platform certification, mentoring engineers, and building scalable, maintainable codebases using **SOLID principles, event-based architecture, and component-based design patterns**.

Skills

Gameplay & Systems Development

Gameplay Architecture, Combat Systems, Character Controllers, AI/NPC Behaviour, State Machines, Behaviour Trees, Animator Controllers, Physics Systems, Input System, VFX, Dependency Injection, SOLID Principles, Design Patterns

Game Engine & Programming

Unity3D, Unity2D, C#, URP, HDRP, ScriptableObjects, UI Toolkit, uGUI

Multiplayer & Networking

Photon PUN/Fusion, Unity Netcode for GameObjects, Epic Online Services (EOS), Matchmaking, Lobby Systems

Backend & Services

Azure PlayFab, Leaderboards, Inventory Systems, Account Systems

AR | VR | XR Development

Meta Quest (SDK + Open XR), AR Foundation, Device Optimization, XR Interaction Toolkit

Optimization & Tools

Unity Profiler, Frame Debugger, Memory Profiling, Build Size Reduction, GPU/CPU Tuning, Unity Job System

Experience

Tensei Games

Lead Unity Engineer

2024 - Present

- Owned end-to-end technical delivery of multiple **Unity (C#)** projects across **mobile, PC, WebGL, and VR platforms**, from prototyping through production and live release
- Architected and implemented core gameplay systems including **combat mechanics, character controllers, multiplayer networking (Photon Fusion), physics, animation state machines, and camera systems** across mobile, PC, WebGL, and VR platforms
- Established engineering standards through **code reviews, SOLID principles, and event-based architecture** while mentoring engineers on technical implementation and architectural decisions
- Profiled and optimized runtime performance using **Unity Profiler, Memory Profiler, and Frame Debugger**, achieving stable **60fps** on mid-range mobile hardware and **72fps+** on VR platforms through shader optimization, draw call reduction, and memory management

Morra Games

Senior Unity Engineer - Contract

Remote

2024 - 2025

- Took over and stabilised an inherited Zenject-based dependency injection architecture for **Mythya (RTS)**, delivering core gameplay systems including **AI, economy management, and army control** with scalable, modular design in **Unity (C#)**
- Architected and implemented production-grade **gameplay mechanics, AI/NPC behaviour, and physics/animation systems** across **iOS, Android, and PC platforms**, following **SOLID principles** and component-based design patterns
- Led cross-platform optimisation and refactoring efforts, mentoring team members on architectural decisions to improve long-term maintainability and runtime performance across mobile and desktop targets
- Profiled and resolved performance bottlenecks using **Unity Profiler**, ensuring consistent frame rate stability and build parity across **iOS, Android, and PC** deployments

FRAG Games

Gameplay Engineer

2019 - 2023

- Owned and shipped gameplay systems across 3+ commercial **Unity titles** on **Nintendo Switch, PlayStation 4/5, and Xbox One/Series X|S**, delivering platform-compliant releases through **Nintendo Lotcheck, Sony TRC, and Microsoft XR certification**
- Designed and implemented **combat and ability systems** including hit detection, ability queuing, cooldown management, and VFX feedback loops, ensuring responsive and extensible combat architecture in **Unity (C#)**
- Built **character controller and movement systems** with fine-tuned physics responses, state-machine-driven locomotion, and cross-platform input handling using **Unity's Input System**
- Developed **AI/NPC behaviour systems** using **behaviour trees and finite state machines (FSM)**, delivering enemy logic, pathfinding, and dynamic difficulty scaling across multiple titles
- Architected **progression and economy systems** including XP pipelines, unlock trees, and in-game currency flows, integrated with **backend services for persistence and live balance updates**
- Implemented **multiplayer and networking features, save/checkpoint systems, procedural level generation, and UI/UX gameplay flows**, contributing across the full gameplay stack throughout the project lifecycle

Gamestorm

Gameplay Engineer

2019 - 2019

- Independently designed and developed a **hyper-casual mobile game in Unity (C#)**, ranking **3rd of 36 studios** in a national game development competition, delivering a complete build across the **full SDLC from concept to deployment**

Education

Information Technology University

Bachelor of Science in Computer Science

2015 - 2019

Projects

VR MG (Myasthenia Gravis) Simulation

Technical Lead | Meta Quest 3 | Client Delivered

2025 - 2026

- Led end-to-end architecture and delivery of a standalone VR medical simulation on Meta Quest 3 using Unity (C#), OpenXR, and XR Interaction Toolkit, implementing hand tracking, gesture-based interaction, and spatial UI/UX
- Optimised shaders, lighting, draw calls, and frame-time to maintain 72fps+ on standalone Quest hardware — successfully delivered to a medical client across the full SDLC

Sacred Tails (Pokémon-Inspired RPG)

Technical Lead | PC, iOS, Android | Shipped

2025

- Stabilised and restructured an inherited Unity (C#) codebase, delivering core gameplay systems including tactical combat, NFT-based creature mechanics, and modular progression architecture with Azure PlayFab integration
- Led iOS and Android porting and performance optimisation using Photon networking, improving FPS by ~30% on low-end devices and integrating PlayFab services (accounts, inventory, and matchmaking)

GOSI Verse (VR Financial Literacy)

Technical Lead | WebGL, PC, Meta Quest 3 | Shipped

2024 - 2025

- Led end-to-end development of Saudi Arabia's first government-backed multiplayer financial literacy app using Unity (C#) and Photon Fusion across WebGL, PC, and Meta Quest 3
- Architected cross-platform multiplayer systems and optimized for VR comfort (frame rate, latency) while ensuring accessibility through web and desktop deployments for educational institutions

Mythya (RTS)

Technical Lead | Android, PC | Shipped

2024 - 2025

- Took over and stabilised a Zenject-based dependency injection architecture in Unity, delivering core RTS systems including AI, economy management, and army control with scalable, modular design
- Directed cross-platform optimisation and scalability efforts, mentoring the team through modular refactoring to improve long-term maintainability and runtime performance

Infern: Hope & Fear

Gameplay Engineer | PC, Steam | Shipped

2024

- Optimised asset pipelines, shaders, and memory management, boosting overall performance by 50% and reducing load times by 30% on a shipped Steam title
- Enhanced combat responsiveness through VFX tuning, animation polish, and feedback system refinement, improving visual fidelity via custom shader and post-processing optimisation

Goons: Legends & Mayhem (AA)

Gameplay Engineer | PS4/5, Xbox, Switch | Shipped

2023 - 2024

- Implemented EOS lobby and session flow integrated with Photon Quantum, enabling stable matchmaking and multiplayer linking across PS4/5, Xbox, Steam and Nintendo Switch
- Led cross-platform porting and multiplayer optimisation, reducing load times by ~15% and improving runtime stability by ~30% across all target platforms

WrestleQuest (AA)

Port Engineer | Nintendo Switch, PS4/PS5 | Shipped

2023

- Led Nintendo Switch port and platform-specific performance optimisation for a shipped AA wrestling RPG, improving runtime stability and platform compliance by 15%
- Mentored two junior engineers through the porting process, establishing platform optimisation workflows and build pipeline standards for console delivery

FoodFight: Culinary Combat / Atari (AA)

Gameplay Engineer | Nintendo Switch | Shipped

2022 - 2023

- Completed and stabilised Photon Bolt networking for Nintendo Switch, delivering real-time combat synchronisation and cert-compliant online session management
- Led platform-specific porting and performance tuning, achieving stable online gameplay and passing Nintendo Lotcheck certification requirements

Life in Willowdale: Farm Adventures (AA)

Gameplay Engineer | Nintendo Switch, PS4/5, Steam | Shipped

2019 - 2022

- Architected core gameplay systems including inventory, combat, farming mechanics, and boss fight systems, alongside scalable save/load and cross-platform state management
- Led Nintendo Switch port with platform-specific tuning, improving FPS by 25% through shader optimisation, memory profiling, and UI performance improvements

Decentraland (Metaverse)

Gameplay Engineer | Decentraland Engine | Shipped

2022 - 2023

- Built an NFT-integrated gameplay experience leveraging OpenSea APIs and smart contract workflows, combining blockchain asset ownership with interactive gameplay mechanics
- Delivered technical art and environment scripting to enhance user engagement, bridging Web3 infrastructure and gameplay design within the Decentraland ecosystem