# **Muhammad Yousaf**

## Full Stack Game Developer | Multiplayer Expert | Backend Architect & Web3 Expert

## **Professional Highlights**

- o 7+ years of experience in full-stack game development with international studios, contributing to multiplayer, match-3, 2D casual, racing, and shooting games.
- Proficient in Unity (PC/Android/iOS) with expertise in Photon Quantum, Mirror, and Colyseus for real-time multiplayer systems.
- 4+ years of backend development using Node.js, WebSockets, and Docker, delivering scalable and secure game server solutions.
- Specialized in Web3 gaming: integrated wallets like MetaMask and Phantom, managed onchain/off-chain transactions, and developed scalable P2E and metaverse experiences.
- Adept at implementing social authentication, secure player profiles, and handling large-scale player databases efficiently.
- Experienced in game monetization, API integrations, performance tuning, and contract-based gameplay systems.

## **Technical Skills**

#### Unity (Client Side)::

- Game play programming, AI, multiplayer (Mirror, Photon), PlayFab, Firebase
- Addressable Bundles, Scriptable Objects, modular design, module development
- Performance optimization, memory optimization, smooth game play

#### Blockchain::

- Wallet : MetaMask, Phantom, Solflare
- On-chain and off-chain transactions
- Token handling and Web3 smart contract interaction
- All Social (SSO) and web3 login

#### Languages & Back-end::

- Node.js, JavaScript, TypeScript, Colyseus, Python, LUA
- Firebase, Express.js, NestJS(basics), Sentry, .NET Server C#
- Joi, Jest, Chai (Mocha)
- MySQL, PostgreSQL, SQLite, GraphQL, MongoDB, Redis, database ORM

- JSON manipulation, REST APIs, WebSockets
- Web3 Auth, JWT, social media Auth (SSO)

## Game Systems::

- Real-time multiplayer architecture (Mirror)
- Player profile, Inventory, stats, progression, achievements
- Game shop systems and in-app purchase validation
- Leader boards, reward systems, friends systems, party systems

## Deployment & DevOps::

- Docker, GitHub Actions, CI/CD (GitHub, Gitea)
- VM provisioning, AWS S3 backups
- Postman, Insomnia for API testing

**Tools & IDEs:**: Unity, Rider, WebStorm, Postman, Visual Studio, ClickUp/Jira, Git (GitHub, SourceTree), Swagger

## **Experience**

Salvay Lahore, Pakistan

Full Stack Game Developer / Team Lead

Oct 2022 - Present

- Led the development of multiplayer games Gnomewarz and Moonkart using Photon and Mirror networking solutions in Unity.
- Integrated PlayFab backend services in Crystal, implementing user authentication, leaderboards, cloud saves, and economy systems.
- O Developed backend services in Node.js for tokenization, player profiles, and game session management.
- Integrated third-party services (auth, analytics, onchin transactions) with modular and reusable APIs, improving development cycle efficiency.
- Mentored junior developers and facilitated agile sprint planning, ensuring timely delivery of critical gameplay features.

## **CLV** Technologies

Lahore, Pakistan

Senior Game Developer

Nov 2020 - Sep 2022

- Architected and engineered scalable backend infrastructures using Node.js microservices to power real-time multiplayer (MP) gameplay in cross-platform Unity games (WebGL, Android, iOS), ensuring seamless integration, low-latency performance, and high concurrency support.
- Directed the full development lifecycle of simulation and open-world games for Android/iOS with support for high concurrency and performance.
- Optimized game performance by refining rendering, graphics pipelines, and codebase, resulting in significant FPS gains across target devices.
- Collaborated with design and art teams to prototype, iterate, and polish interactive gameplay systems and UI components.

Game District Lahore, Pakistan

Senior Game Developer

Dec 2017 - Aug 2020

- Delivered multiple Unity titles with monetization integration (AdMob, Unity Ads), collectively reaching more than 1M+ downloads.
- Improved user retention through the implementation of daily rewards, level gating, and achievement tracking.
- Worked across departments to enhance UI/UX polish and gameplay fluidity in casual and hyper-casual mobile games.

## **Education**

## **Lahore Leads University**

Lahore, Pakistan

M.Phil in Computer Science

2020

GPA: 3.80

## M.Phil Thesis (machine learning)

#### Machine Learning Application for Acute Leukemia Detection using Mask R-CNN

Developed a deep learning model based on Mask R-CNN to accurately detect and segment leukemic cells from microscopic images, improving diagnostic accuracy and automation in medical image analysis.

Language: Python — Frameworks: TensorFlow, Keras — Model: Mask R-CNN

## **Projects**

#### Wire Network: Wire Games

Al-driven RPG platform – Engineered server-side logic for dynamic storytelling using LLMs. Powered by a custom Al Game Master.

Tech: Web3, Node.js, TypeScript, OpenAI, Redis, WebSockets, S3

## Gnome Wars: Gnome Warz Live OR Gnome Warz Trailer

Developed multiplayer logic, wallet-based login, and backend integration. Custom development and integration of the party system, friend system and the complete backend *Tech: Node.js, Web3, JWT, S3, Multiplayer APIs, WebSockets* 

#### Phonics Zoom - Educational 2D App: YouTube Demo

Built mini-game modules, interactive animations, and audio feedback systems.

Tech: Unity, C#, Android SDK, Animation tools, PlayFab

## MoonKarts (WebGL): MoonKarts WebGL

Implemented wallet login, real-time multiplayer with Photon, NFT integration and complete backend interaction

Tech: Unity, Photon (Quantum), Solana Wallet Adapter, Web3, Node.js, Blockchain, Postgresql, AWS, CI/CD

## Crystale (Epic Games): Crystale on Epic Games

Designed AI behavior trees and implemented PvE combat logic

Tech: Unity, C#, PlayFab, Addressable, ScriptableObjects, Node. js, Postgresql, Web3 (SSO login)

#### **Stakehouse Web App**: Stakehouse dApp

Developed and integrated backend and real-time wallet transactions

Tech:Unity, C#, ScriptableObjects, Node.js, Postgresql, Web3 (SSO login), blockchain, Ci/Cd

#### **EnAble ALL**: EnAble ALL (IOS store)

Assistive technology app – Contributed to backend; integrated P2E modules for social good *Tech:Unity, C#, Node.js, Postgresql, Web3 (SSO login), blockchain, Ci/Cd* 

## Tales & Conquest (Al-Powered RPG): Tales & Conquest Website

Contributed to the development of an Al-driven roleplaying game that offers limitless storytelling and exploration. Played a key role in backend development, integrating scalable systems to support dynamic, evolving narratives powered by an Al Game Master

Tech:penAl API, RAG, Node.js, python, Postgresql, websockets, Docker, CI/CD

## HoneyLand (Google Play): HoneyLand (Google Play)

P2E mobile games –Developed complete game play along with token economy integration, backend development and integrations ( player profiles, reward mechanics, leaderboard, onchain/offhchain transaction) Tech:Unity, Firebase, Wallets, Web3, Node.js, REST APIs, Postgresql, AWS, CI/CD

## **Action and Simulation**: Play Store (1) ||PlayStore(2)||

 $Developed game play systems, optimized graphics, and implemented IAP validation \\ \textit{Tech:Unity, Android SDK, iOS, Firebase, IAP, Ads}$