

AKAASH GARG

Lead XR Engineer · Unity · Photon · OpenXR · AR Foundation · 17+ yrs Software · 6 yrs XR

Bangalore, India · Available for remote work worldwide

akaash.garg@gmail.com · linkedin.com/in/akaashgarg · akaashgarg.com

PROFILE

Lead XR engineer with **17+ years building and shipping software**, moving into game development in 2019 and XR in 2020 — **6 years** now specialized in Unity 3D and immersive technology. Depth across AR/VR/MR frameworks (OpenXR, AR Foundation, XR Interaction Toolkit), multiplayer networking (Photon Fusion, Mirror), rendering pipelines (URP/HDRP), shader programming, and GPU optimization on Meta Quest, HoloLens, HTC Vive, and Varjo. Currently leads a 6-person team at 2 Dude Studios delivering location-based VR now running in commercial arenas, enterprise XR training for logistics and manufacturing, and *Ruins of the Forgotten*, an open-world survival game with a playable public demo on Steam. Equally comfortable owning networked backend services, render performance, and client delivery.

EXPERIENCE

Lead XR Engineer · 2 Dude Studios

Jul 2023 – Present · Remote

XR studio delivering VR/AR/MR for enterprise training, simulation, and games. Steam-published developer.

- **Lead a 6-person delivery team** — 2 developers, designer, QA, and business development — owning architecture, code review, sprint planning, and client delivery across concurrent engagements while shipping production code weekly. (*Studio co-founder.*)
- ***Ruins of the Forgotten* — open-world survival game, playable public demo on Steam** (Early Access Q3 2026). Owned gameplay systems, procedurally generated terrain, day/night simulation, wildlife AI, animation state machines, custom shaders, and the full Steamworks release pipeline.
- **Engineered a networked enemy AI system on Photon** — server-authoritative behaviour trees and state machines with client-side prediction and interpolation, keeping AI perception, pathfinding, and combat decisions synchronized across clients with no desync or duplicated damage events.
- **Aura VR — free-roam LBE VR arena platform, live in 3 commercial venues.** Photon Fusion, avatar and physics sync at 90fps standalone on Quest, multi-headset co-location, and operator session tooling — built for a client running VR arenas across India.
- **Delivered a gamified VR compliance training product** — regulatory curricula rebuilt as branching scenario modules with performance scoring, replacing slide-based training with rehearsable situations.
- Shipped **15+ XR applications** across Meta Quest, HoloLens, HTC Vive, and Varjo — training simulators, multiplayer experiences, and AR visualization tools using passthrough MR, hand tracking, and room-scale interaction.
- Optimized rendering to Quest's **90fps frame budget** — draw-call batching, LOD systems, texture atlasing, object pooling to control GC pressure, and custom HLSL/ShaderGraph shaders for materials, lighting, and transparency on mobile XR hardware.

Lead VR Developer · Witzeal Technologies

Mar 2023 – Jul 2023 · Contract · Remote

Multiplayer Meta Quest VR extension of Big Cash Poker — real-time multi-user gaming on a 50M+ user IP.

- Led end-to-end Unity development of a multiplayer Meta Quest title extending a **50M+ user mobile platform** — multi-user game logic, networked interaction, and 3D environment rendering.
- Built the networking layer bridging the Unity VR client and a proprietary Java backend — **sub-100ms latency** for concurrent sessions via optimized state sync and authoritative server reconciliation.
- Established sprint cadence and code review — shipped a regulated multiplayer VR product with **zero critical post-launch defects** in a 3-month window, 25% ahead of baseline estimates.

Lead Unity Developer — CollaboratAR · CodeXAR

Jan 2022 – Dec 2022 · Remote

Enterprise AR platform for real-time multi-user 3D collaboration and remote design review.

- Led a **5-person team** building CollaboratAR in Unity with AR Foundation, Mirror Networking, Master Server Toolkit, and Draco compression — letting businesses present detailed 3D clones of physical products on web, in AR, and in shared virtual space.
- Built the **photogrammetry-to-AR asset pipeline** — scanned physical products converted to optimized runtime models retaining **8K source texture detail** on mobile hardware through shader optimization, atlasing, mesh compression, and LOD, with no visible quality loss.
- Implemented physics-based interaction, real-time material rendering, and lighting — photorealistic visualization accurate enough for remote design sign-off.
- Cut client physical sampling and travel costs **40%** by delivering on schedule — ROI validated by client procurement metrics. Deployed cross-platform to iOS and Android.

Founder & Lead Developer · Cyber Cerebs

2008 – 2021 · Delhi, India

Full-service digital studio — full-stack product development and delivery.

- Grew a solo practice into an **8+ person studio** shipping 50+ digital products across hospitality, sports, travel, and fleet services for clients in India and overseas.
- **Pivoted the studio into interactive development — games from 2019, XR from 2020** — self-directed the move from full-stack web into Unity, shipping mobile and PC titles across racing, roguelite, RPG, simulation, and runner genres.
- Owned technical hiring, client engagement, delivery timelines, and P&L across a multi-vertical portfolio for 13 years.

SHIPPED PRODUCTS

Ruins of the Forgotten: A Wild Survival · Open-world PC survival — playable Steam demo live, Early Access Q3 2026 · store.steampowered.com/app/2726410

Aura VR · LBE free-roam VR arena software, live in 3 commercial venues — Photon Fusion, 90fps standalone, co-location

CollaboratAR · Photogrammetry-driven multi-user AR product collaboration — Mirror Networking, 8K texture fidelity on mobile

Big Cash Poker VR · Meta Quest multiplayer on a 50M+ user IP — 3-month delivery

xrapp.dev · Multi-user VR team training SaaS for logistics, manufacturing, and safety drills — Unity + PERN stack · xrapp.dev

Full portfolio · 15+ shipped AR/VR and game titles · akaashgarg.com/portfolio

TECHNICAL SKILLS

Engines & XR SDKs: Unity 3D, OpenXR, AR Foundation, XR Interaction Toolkit, Meta XR SDK, MRTK, ARKit, ARCore

Multiplayer & Networked Systems: Photon Fusion, Photon PUN, Mirror Networking, server-authoritative architecture, client-side prediction & interpolation, state synchronization & reconciliation, latency compensation

Gameplay & AI: Behaviour trees, finite state machines, NavMesh pathfinding, procedural generation, animation state machines, physics-based interaction, character controllers

Graphics & Performance: URP, HDRP, HLSL, ShaderGraph, custom shaders, GPU profiling, draw-call batching, LOD systems, texture atlasing, Draco compression, object pooling & GC optimization, 90fps standalone budgets

3D Pipeline & Mixed Reality: Photogrammetry capture-to-runtime, mesh decimation & retopology, UV/texture optimization, asset streaming, passthrough MR, spatial anchors, hand tracking, room-scale & co-located multi-user

Backend & Full-Stack: PERN stack (PostgreSQL, Express, React, Node.js), REST API design, authentication & session management, dedicated server hosting for multiplayer

Platforms: Meta Quest 2/3/Pro, HoloLens, HTC Vive, Varjo, PC (Steam / Steamworks), iOS, Android

Languages & Tools: C#, JavaScript/TypeScript, Python, HLSL, SQL, Git, Unity Profiler, RenderDoc, Blender, Jira, Agile/Scrum, CI/CD pipelines