AJITH KUMAR

XR Developer | AR/VR/MR | Unity | Unreal Engine | AI Integration
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PROFESSIONAL SUMMARY

Results-driven XR Developer with 3.9+ years of experience architecting and deploying immersive AR/VR/MR applications using Unity and Unreal Engine. Proven track record delivering enterprise XR training simulations for Fortune-level clients (Hyundai, Flowserve, IDFC Bank) across Android XR headsets, standalone VR, and PC platforms. Skilled in C#, C++, OpenXR, XR Interaction Toolkit, AI integration, and LMS-connected training systems. Adept at collaborating cross-functionally with 3D artists, instructional designers, and subject matter experts to deliver high-impact immersive learning experiences.

CORE TECHNICAL SKILLS

Game Engines	Unity (URP/HDRP, XR Interaction Toolkit, AR Foundation), Unreal Engine (Blueprints, C++)
Programming	C# (Advanced), C++ (Advanced)
XR & Android	OpenXR, Android SDK/NDK, Meta Quest, Oculus standalone, AR Foundation,Hololens
AI Integration	Conversational AI, Face Recognition, Voice/NLP
3D & Rendering	Shader Graph, VFX Graph, HDRP/URP, Niagara VFX, LOD, occlusion culling, 3D math
LMS & Standards	SCORM, REST API integration, performance tracking & reporting
Tools & CI/CD	Git, Bitbucket, CI/CD pipelines for XR builds, Addressables
Platforms	Android (Standalone VR), WebGL ,PC, PCVR, Universal Windows pLtform

PROFESSIONAL EXPERIENCE

XR / Game Developer | Novac Technology Solutions — India — Jan 2022 – Present

- Architected and developed AR/VR/MR training applications using Unity and Unreal Engine for Android XR headsets, PC, and WebGL platforms — directly aligned with KLA's immersive learning mandate.
- Designed and deployed immersive learning modules using XR Interaction Toolkit and OpenXR, with step-by-step procedural training workflows (Learn–Try–Assess methodology).
- Integrated xAPI/REST APIs to capture user session data (task completion, retries, accuracy) and push structured performance reports to backend analytics dashboards — enabling LMS connectivity.
- Implemented AI-driven features including Conversational AI, Face Recognition for personalized sessions, adaptive dialogue, and voice-based NPC interactions.
- Engineered runtime 3D scene editors, TriLib model importers (FBX/GLB/GLTF), and animation keyframe extractors for flexible, scalable XR content pipelines.
- Optimized standalone VR builds for Meta Quest/Oculus hardware: GPU/CPU profiling, batching, occlusion culling, shader optimization, ensuring stable long-duration training performance.
- Developed reusable modular frameworks — multi-input controllers, floating joystick, interaction libraries — accelerating development cycles across projects.
- Collaborated cross-functionally with 3D artists, designers, and backend engineers in agile sprints to deliver enterprise-grade XR products on schedule.
- Conducted code reviews and introduced best practices for XR performance, input abstraction, and component persistence across the development team.

KEY XR PROJECTS

Hyundai Plant — Electrical & Tool Handling Safety Training

Oculus Quest (Standalone VR) | Unity 6, C#, XR Interaction Toolkit, Shader Graph, VFX Graph, UI Toolkit

- Built a standalone VR safety training simulation for Hyundai manufacturing — electrical hazard scenarios, tool handling, and operator awareness using XR Interaction Toolkit.
- Implemented Learn–Try–Assess training flow with performance tracking (task time, procedural accuracy) and structured reports for trainer review — equivalent to xAPI-style assessment pipelines.
- Created realistic electrical hazard VFX (spark effects, live wire indicators, short-circuit reactions) using Shader Graph and VFX Graph.

Conversational AI Interactive System (IAORA) — Novac GT

PC | Unity, C#, Conversational AI, Face Recognition, QR Scanner

- Built a real-time Conversational AI system with Face Recognition for personalized user sessions, adaptive response flows, and intelligent avatar interaction — directly applicable to AI-driven tutoring systems.
- Integrated cloud AI models for dynamic voice-based dialogue, scenario-based content switching, and real-time data visualization — experience aligned with Azure Cognitive Services and AWS AI/ML integration.

VR Escape Room — IDFC Bank Employee Training

Android Standalone VR | Unity, C#, XR Interaction Toolkit, REST API

- Delivered a VR escape room for corporate employee training; captured session metrics (completion time, retries) via REST API into admin performance dashboards — LMS-ready architecture.

Motor Assembly Simulation — Flowserve

Windows PC | Unity HDRP, C#, multi-input

- Engineered a high-fidelity industrial motor assembly simulation using HDRP with support for keyboard, touch, joystick, and gamepad inputs; delivered as enterprise installer.

Virtual Shopping Mall — Shriram (Super App)

PC & PCVR | Unreal Engine, Blueprints, OpenXR, C++

- Built a virtual mall with AI receptionist, NPC crowd system, and gamified zones using Unreal Engine (Blueprints + C++) and OpenXR — strong Unreal Engine XR experience for KLA's multi-engine environment.

EDUCATION

B.Voc — Augmented & Virtual Reality
Periyar University, India | 2019 – 2022

B.Sc — Physics
Periyar University, India | 2016 – 2019

MBA (In Progress)
University of Madras | 2024 – Present

ADDITIONAL INFORMATION

Languages: English, Tamil
Nationality: Indian
Portfolio: https://portfolio-website-three-puce-42.vercel.app/