PRIYA GIRIN

GAME DEVELOPER / ENGINEER (UNITY & UNREAL)

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Linkedin | Portfolio | Github | Itch.io

Game Engineer with 2.5 years of experience in Unity and Unreal Engine, specializing in VR gameplay systems, multiplayer replication, physics-based simulations, and performance optimization. Experience includes shipping Play Store titles, developing custom engine plugins, and delivering defense-grade training simulations.

TECHNICAL SKILLS

Engines: Unity (2D/3D), Unreal Engine
Languages: C#, C++, Java
Gameplay Systems: Player Input, Physics, Vehicle Systems, Animation & IK, Game State Management
Multiplayer: Unreal Replication, RPC, Photon, Netcode for GameObjects, Socket.IO
XR: Meta Quest, Oculus SDK, Vuforia
Unity Systems: Addressables, Asset Bundles
Tools: Git, Jira, Confluence, Android Studio, Play Console, CI/CD Pipelines (Build & Deployment)

EDUCATION

Bachelor of Science in Information Technology - Bunts Sangha College
HSC – Maharashtra State Board
SSC – Kumud English School

PROFESSIONAL EXPERIENCE

Launchtrax (Oct:2023-2026)

Accomplishments:

- Developed a real-time mining vehicle simulation in Unity with physics-based movement, collision handling, and LOD optimization, maintaining stable performance on standalone Meta Quest.
- Built a custom Unity plugin for in-game notification systems and modular communication workflows.
- Developed a custom Unreal Engine C++ plugin for session recording and debrief playback.
- Implemented multiplayer replication in Unreal Engine, including full-body VR rig synchronization using replication and RPCs.
- Profiled and optimized CPU/GPU performance to maintain stable frame rates on standalone VR hardware.
- Developed AR and VR interactions using Vuforia and Oculus SDK, optimized for standalone VR devices.

PROJECTS

Virtual Reality Mine Simulator (Unity) Team Project

- Engineered a real-time mining vehicle simulation with physics-based movement, collision handling, and environment interaction.
- Implemented player input systems using Oculus controllers and joystick for intuitive VR navigation.
- Designed interactive safety gameplay scenarios with real-time feedback and state-based progression.
- Optimized rendering, physics, and LODs to maintain stable performance on standalone Meta Quest.
- Collaborated with domain experts to align gameplay scenarios with industry safety workflows.

Autonomous Underwater Vehicle (Unity) Individual

- Developed an AR application using Vuforia Model Target detection to visualize a 3D AUV model.
- Implemented interactive exploded-view visualization to inspect individual components.
- Built component-level interaction logic to demonstrate system functionality in real time.
- Optimized AR performance and tracking stability for mobile devices.

Multiplayer Network Setup (Unreal) Individual

- Designed and implemented a client-server multiplayer architecture using Unreal Engine replication and RPCs.
- Deployed dedicated servers supporting VR, PC, and mobile clients.
- Implemented synchronized multiplayer interactions across multiple platforms.
- Integrated Cesium terrain for large-scale digital environments.
- Applied the architecture across multiple projects to ensure reliable real-time connectivity.

VR Escape Submarine (Unreal) Individual

- Implemented full-body IK control rig for VR avatars integrated with HMDs, controllers, and trackers.
- Developed networked IK replication with smoothing and prediction for consistent multiplayer movement.
- Built an authority-based access control system to manage active vs passive users.
- Deployed a low-latency client-server architecture with a dedicated desktop server and VR clients (Meta Quest / PC VR).
- Developed a debrief recording and playback system using a custom Unreal Engine C++ plugin.
- Implemented networked teleportation, safe-zone spawning, and synchronized state transitions.
- Built real-time replicated material and visual state switching for interactive systems (e.g., security cameras).

Digital Sand Model (Unreal BP and C++)

- Developed a custom Unreal Engine C++ sequencer system to plan and control mission flow, timed gameplay events, and state transitions at runtime.
- Built a real-time Audio Importer Unreal Engine C++, chat system supporting text, audio recording/playback, images, and video messages
- Unity-style Timeline Ruler in Unreal Engine with zooming, scrolling, and dynamic time scaling.

Real-Time Multiplayer Prototype (Unity / Socket.IO)

• Designed and implemented a real-time multiplayer architecture using WebSockets (Socket.IO).
• Built an authoritative Node.js server for player state synchronization and event handling.
• Implemented latency compensation, interpolation, and extrapolation for smooth movement.
• Developed room/lobby management and reconnection handling.
• Designed modular network message pipelines to support future gameplay systems.

Multiplayer & Systems

- Experience building real-time multiplayer gameplay using Photon and Netcode for GameObjects
- Implemented client-server architectures, player synchronization, and networked state management
- Worked with Addressables and Asset Bundles for modular, scalable asset loading
- Developed and integrated custom shaders for visual effects and gameplay feedback

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It’s Digital Era (April:2022-September:2023)

Android Developer

Developed and deployed Android applications using Java.
• Implemented gameplay-like interactive features and UI flows.
• Integrated Google AdMob monetization and managed live production apps, handling updates, performance monitoring, and Play Store releases.
• Managed Play Store deployment, updates, and live app maintenance using Play Console.