

Karan Nandkar

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Professional Summary

Senior Gameplay Engineer with 8+ years of experience designing, building, and shipping gameplay systems across Unity and Unreal Engine for mobile and multiplayer games.

Specialized in gameplay architecture, multiplayer systems, progression design, and performance optimization, with strong ownership across the full development lifecycle—from prototype to live production.

Experienced in building scalable systems that support long-term content growth, reducing technical debt through modular architecture, and solving runtime bottlenecks across gameplay, rendering, UI, and networking.

Strong background in real-time multiplayer design, mobile optimization, PlayFab integration, and production-ready engineering for shipped titles. Comfortable leading technical decisions, mentoring developers, and working cross-functionally with design, product, and art teams to deliver stable, high-retention player experiences.

Work Experience

01/2025 – 02/2026

Pune, India

Senior Game Developer **P99SOFT Private Limited**

Led gameplay development across Unity and Unreal Engine projects with a focus on scalable gameplay systems, multiplayer architecture, and production-ready technical design.

Owned technical direction for EcoRun (Unity) and Yaaro Ki Rasoi (Unreal Engine), building modular systems designed for maintainability, performance, and long-term live production support.

- Architected modular player systems using SOLID principles by separating input, movement, and gameplay control logic for long-term maintainability
- Built reusable gameplay systems for obstacles, collectibles, power-ups, and progression using deterministic spawning and tile pooling
- Designed data-driven progression systems supporting scalable content expansion and balance iteration
- Integrated PlayFab authentication, title data, and user data pipelines with synchronized async initialization
- Solved major runtime bottlenecks through rendering optimization, UI performance tuning, Tick reduction, pooling systems, and runtime profiling
- Optimized Unreal Engine mobile performance by reducing world-space widget overhead, replacing expensive Niagara FX where needed, and improving interaction system scalability
- Collaborated closely with design, art, and product teams to ensure gameplay systems remained flexible, performant, and production-ready

12/2023 – 12/2024

Bengaluru, India

Game Developer / SDK Engineer (Client Project) **P99SOFT Private Limited - K-ID**

Designed and delivered a production-ready Unity SDK for secure client-server communication across multiple products.

- Built modular and reusable SDK architecture for rapid integration across Unity projects
- Implemented optimized API workflows to reduce latency and improve runtime reliability
- Ensured cross-platform compatibility across Android, iOS, and Windows
- Authored developer documentation and integration workflows to reduce client onboarding effort

01/2021 – 11/2023
Mumbai, India

- Supported gameplay system development including progression systems, gameplay loops, and runtime optimization for mobile delivery

SDE 3

Loco - India's Leading Game Streaming Platform

Built and optimized multiplayer gameplay systems for live mobile games with a focus on real-time combat fairness, progression systems, monetization, and scalable production architecture.

Worked extensively on **Tankz N Glory**, a real-time 4v4 team-based mobile shooter, designing multiplayer gameplay systems that balanced responsiveness, fairness, and long-term progression.

- Designed server-authoritative multiplayer systems for combat-critical gameplay, improving fairness and consistency under unstable mobile network conditions
- Implemented client-side prediction, lag compensation, interpolation, and validation systems for responsive and reliable real-time battles
- Built scalable gameplay systems for abilities, inventory, tank stats, and progression using data-driven architecture
- Designed progression systems including unlocks, upgrades, and stat tracking to support long-term player retention without disrupting gameplay balance
- Integrated IAP systems, ads, analytics pipelines, and live debugging workflows across shipped titles
- Led crash reduction and runtime optimization initiatives, significantly improving production stability and gameplay consistency
- Collaborated with product and design teams using player analytics to improve gameplay retention and competitive balance

04/2019 – 01/2021
Mumbai, India

Game SDE 2

Loco - India's Leading Game Streaming Platform

Worked on multiplayer gameplay systems, live game improvements, and feature delivery across mobile game titles with strong focus on real-time PvP systems and mobile optimization.

Contributed heavily to **BullBash**, a real-time PvP strategy game inspired by Clash Royale, focused on synchronization reliability, lag compensation, and strategic mid-match decision systems.

- Built multiplayer synchronization systems to reduce lag and out-of-sync gameplay issues during real-time PvP battles
- Optimized RPC usage, state synchronization, and network message flow for fair and responsive multiplayer gameplay
- Implemented lag compensation techniques to improve match consistency across unstable mobile network conditions
- Designed and integrated dynamic power-up systems that added strategic depth and improved mid-match player decision making
- Improved frame stability through object pooling, memory optimization, and adaptive performance tuning across low- and mid-range mobile devices
- Supported monetization systems and live-ops improvements across active production titles

11/2017 – 03/2019
Mumbai, India

Game Developer

Tap Cube Studios

Shipped multiple Android games across racing, platformer, and action genres.

- Built core gameplay systems, UI flows, and gameplay loops for mobile delivery
- Improved player engagement and runtime performance through gameplay optimization
- Developed strong foundations in rapid prototyping, gameplay ownership, and shipping discipline

Featured Projects

01/2025 – present
Pune, India

Yaaro Ki Rasoi **Kitchen Simulation | Unreal Engine | Mobile**

Led gameplay and performance optimization for a simulation-driven kitchen game focused on interaction systems, Tick reduction, UI optimization, and scalable runtime architecture.

Play Store: <https://play.google.com/store/apps/details?id=com.p99softgamesstudio.yaarokirasoi&hl=en>

06/2025 – present
Pune, India

EcoRun **Endless Runner | Unity | Mobile**

Designed and led gameplay architecture for a scalable endless runner focused on modular player systems, progression architecture, PlayFab integration, and mobile performance optimization.

Play Store: <https://play.google.com/store/apps/details?id=com.p99softgamestudio.projectinfinity&hl=en>

Technical blogs and case studies available at <https://codekarangames.dev>

Technical Skills

Game Development

Unity, Unreal Engine, C#, C++, Blueprints, Gameplay Systems, Multiplayer Systems, UI Systems, Progression Systems, Ability Systems, Inventory Systems

Architecture & Engineering

OOP, SOLID Principles, Design Patterns, Modular Architecture, Scalable Systems Design, Client-Server Systems, PlayFab Integration, REST APIs

Performance & Optimization

Mobile Performance Optimization, Runtime Profiling, Memory Optimization, CPU/GPU Bottleneck Analysis, Tick Reduction, Object Pooling, Rendering Optimization, UI Optimization

Debugging & Production

Unity Profiler, Frame Debugger, RenderDoc, Git, Live Production Debugging, Crash Reduction, Production Stability

Social Media



Portfolio



LinkedIn



GitHub

Hobbies



Gaming



Football



Swimming



Exploring distant lands