

Hemal Patel

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PROFESSIONAL SUMMARY

Senior Gameplay Engineer with over 6 years of experience building robust multiplayer systems and scalable toolsets for live-service (GAAS) games. I thrive on solving complex technical challenges—from optimizing low-level engine performance to architecting scalable gameplay frameworks. Deeply committed to fostering engineering excellence through mentorship and collaboration, I enjoy bridging the gap between creative design and technical implementation to deliver polished, innovative player experiences in remote, globally distributed teams.

SKILLS

Languages: C++, C#, Lua

Game Engines: Unreal 4, Unreal 5, Unity

Programming Skills: Gameplay Systems, Multiplayer Networking, Live Service (GAAS), UI Systems, MVVM, Physics

Core Competencies: System Architecture, Technical Leadership, Mentoring, Cross-discipline Collaboration, Performance Profiling

Tools: Perforce, Github, BuildGraph, Automation Tools, Visual Studio, Rider, VSCode, JIRA

AI Tools: Claude, Gemini, Copilot

EXPERIENCE

Software Engineer II (Senior Gameplay / Systems Focus)

Nov 2019 – Dec 2025

WaveXR

Remote

- Played a key role in shaping the technical direction for 'Nexus', a foundational social ecosystem, by architecting scalable C++ frameworks and interaction models that became the core standard for future features.
- Partnered closely with design and art leadership to bridge high-level creative vision with hands-on engineering, delivering innovative gameplay features for a live-service (GAAS) environment.
- Established and maintained engineering standards and best practices, conducting rigorous code reviews to drive code quality, reduce technical debt, and ensure long-term sustainability.
- Mentored multiple engineers across gameplay and tools, fostering professional growth and ensuring technical excellence throughout the development pipeline.
- Architected server-authoritative multiplayer systems, enabling complex state synchronization and dynamic visual updates across persistent, live server instances.
- Improved engineering practices and pipelines by developing proprietary Unreal Editor tools, reducing art workflow time by 30% and significantly boosting studio efficiency.
- Defined performance targets and optimized core systems using Unreal Insights, achieving over 80% performance gains in memory management and rendering for PC and VR platforms.
- Executed rapid prototyping to validate gameplay mechanics, allowing the team to fail fast and pivot effectively, ensuring resources were focused on high-value solutions.
- Helped the team successfully transition from Unity to Unreal, simultaneously architecting core interaction features like Custom Niagara Components to support complex visual requirements.
- Integrated backend services (user accounts, party systems) with gameplay logic, ensuring reliable cross-platform data synchronization for a seamless online experience.

Contract Unity Programmer

Nov 2015 – Feb 2020

Razor Edge Games

Remote

- Engineered core gameplay loops including turn-based combat, inventory, and survival mechanics, implementing custom logic for dynamic boss encounters and player tracking.
- Led the integration of open-source hair/fur simulation and holographic UI shaders, troubleshooting complex mesh-to-spline data format conflicts.
- Created custom internal tools that streamlined the content creation pipeline, reducing iteration time for artists and designers on a large-scale open-world project.
- Contributed to a major DLC release by diagnosing critical bugs and maintaining technical documentation to ensure project transparency.

Unity Developer

Jun 2014 – March 2015

Smartcloud Infotech Pvt. Ltd.

Pune, India

- Shipped interactive commercial applications using Unity, including *Alimentary Avengers*, *Tafe Planetary Plus*, *E-Smart*, and the informative app *Be Safe, Be Smart!*

- Consulted with clients to define project scope and provided accurate project estimations, along with process improvement suggestions.
- Implemented and iteratively refined UI/UX and gameplay features based on direct client feedback and requirements.

EDUCATION

DePaul University

MS in Computer Game Programming

Online
Coursework Completed (Capstone Pending)

CEPT University

Master of Business Administration. Information Technology and Project Management

India
2014

Gujarat Technological University

Bachelor of Technology in Information Technology

India
2012