

Hemal Patel

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PROFESSIONAL SUMMARY

Software Engineer with extensive experience building server-authoritative multiplayer systems and custom Unreal and Unity editor tools. Proven record of delivering high-impact features for live-service products, including optimizing core systems for 80%+ performance gains and reducing art workflows by 30%. Strong background in Unreal Engine internals, multiplayer networking, and engine transitions, with a collaborative, mentorship-driven approach. Adept at operating in lean, fast-paced startup environments with a history of end-to-end feature ownership.

SKILLS

Languages: C++, C#, Lua

Game Engines: Unreal 4, Unreal 5, Unity

Programming Skills: Gameplay Systems, Multiplayer, Online Game Development, UI Systems, Physics

Core Competencies: Problem Solving, Teamwork, Communication, Adaptability, Mentoring, Technical Design, Leadership

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

AI Tools: Claude, Gemini, Copilot

EXPERIENCE

Software Engineer II (Senior Gameplay / Systems Focus)

Nov 2019 – Dec 2025

WaveXR

Remote

- Spearheaded a mission-critical core social initiative: Nexus, leading the team to successful integration and adoption as a foundational system.
- Functioned as a solo engineer on rapid-response initiatives, executing full-stack development (Gameplay, UI, Backend integration) to deliver critical features outside the primary roadmap cycle.
- Performed rapid prototyping to validate gameplay mechanics for stakeholders, allowing the team to 'fail fast' and pivot direction before committing significant resources.
- Architected and implemented server-authoritative, state-synchronization systems enabling users to dynamically change visual elements across a persistent, live server instance.
- Provided technical guidance and mentorship to multiple developers on the creation of diverse and scalable interaction systems, ensuring adherence to engine best practices and performance standards.
- Worked with the team on successful engine transition from Unity to Unreal, simultaneously architecting and implementing some of the core interaction features (e.g. Custom Niagara Components, Single Niagara Subsystem per client).
- Integrated foundational backend services (e.g., user accounts, party system) with gameplay systems, ensuring reliable and scalable cross-platform data synchronization.
- Engineered and optimized robust, low-latency gameplay systems for dedicated multiplayer networking environments, ensuring highly synchronized and scalable player experiences.
- Developed multiple proprietary tools within the Unreal Editor, resulting in a quantifiable increase in workflow efficiency for the Art team (e.g., reducing scene setup time by 30%).
- Applied deep engine-level expertise and Unreal Profiling tools (e.g., Unreal Insights) to refactor and optimize various core systems (e.g., memory management, rendering), resulting in substantial performance gains of over 80% across the application.

Contract Unity Programmer

Nov 2015 – Feb 2020

Razor Edge Games

Remote

- Contributed substantially to the game engine codebase, focusing on system-level functionality. Engineered core turn-based gameplay mechanics and inventory systems.
- Resolved assigned technical challenges and diagnosed/eliminated critical bugs using Visual Studio debugging tools.

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	Online
<i>MS in Computer Game Programming</i>	<i>Anticipated 2027</i>
CEPT University	India
<i>Master of Business Administration. Information Technology and Project Management</i>	<i>2014</i>
Gujarat Technological University	India
<i>Bachelor of Technology in Information Technology</i>	<i>2012</i>