Aman Khandelwal — Resume (Remote, 2026)

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Senior Gameplay & Systems Programmer — Unreal Engine 5 / Unity · Open to remote

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GitHub · ArtStation · Fab · YouTube · LinkedIn

Summary

Senior Gameplay & Systems Programmer with 5+ years shipping games across PC, mobile and VR in Unreal Engine 5 and Unity — server-authoritative multiplayer, AI frameworks, custom editor tooling and performance optimization. Independently designed, built and commercialized seven products on Fab (reusable UE5 C++ frameworks, a Unity AI suite, gameplay tooling, a 750+ asset low-poly environment series), owning each end to end from architecture through publishing. Comfortable working autonomously in distributed, remote teams.

Technical Skills

Languages & Architecture	C++, C#, Python; reusable framework design, Blueprint-extensible APIs, automated testing, modular plugin packaging
Unreal Engine 5	C++ modules & plugins, Blueprints, Gameplay Tags, GAS, custom editor tooling, data assets, animation blueprints & state machines, MetaHuman
Unity	URP, Burst, WebGL & mobile builds, AR Foundation, GraphView-based custom editors, Behavior/AI tooling
Multiplayer & Networking	Server-authoritative simulation, actor replication, dedicated servers (AWS), Photon Fusion, Epic Online Services, Steam SDK
AI & Gameplay Systems	Behavior Trees, Environment Query System (EQS), Perception, Smart Objects, crowd simulation, NPC AI
Backend & AR/XR	Firebase (Auth, Firestore, Cloud Functions), Google Play Services, Meta Quest, Oculus SDK, MapBox SDK, location-based AR
Tooling & Pipeline	Git, Perforce, Visual Studio, Xcode, RenderDoc, Unreal Insights, Blender (bpy) procedural generation
Languages Spoken	English (professional working proficiency), Hindi (native)

Selected Engineering Work

HITZ: Merge Tactics — UE5 Auto-Battler Framework (solo, published on Fab)

Unreal Engine 5.8 · ~13,800 lines of C++ across four modules · Paid, source-available · Fab · Code · Docs

- Designed a reusable, source-available framework that lets another UE5 developer ship a complete auto-battler without writing C++. Wrote the listing, setup guide and documentation site myself.
- Built server-authoritative combat: the server locks board snapshots, simulates, and replicates a compact event log for client replay. Clients never compute outcomes, closing the cheat surface on match results.
- Designed the extension surface around four Blueprint-implementable interfaces (stat provider, targeting, trait effects, ability execution) and a GAS bridge that swaps the stat backend per unit with no other changes.
- Built editor tooling: a click-to-paint board layout editor, a Unit Definition editor with live 3D preview, and a save-time validator across seven data-asset types.

Hitz AI Suite — Unity AI Framework (solo, published on Fab)

Unity 6000.3 LTS+ · C# · nine AI systems + a Unity Behavior bridge · 337 automated tests · Fab

- Designed and built a commercial Unity package bringing Unreal-style AI tooling — Behavior Trees, EQS, Perception, Smart Objects, crowd simulation — into Unity, with a GraphView-based Behavior Tree editor.
- Performance-tuned for production: a 500-agent crowd-simulation benchmark holds a 0.19 ms median per-frame cost with zero GC allocation, measured in the Unity Editor.
- Covered by 337 automated tests (271 EditMode, 66 PlayMode); release builds strip all debug/editor-only tooling via conditional compilation.

Ktrl Smash — Multiplayer Arena Brawler

Unity · Steam (Windows) + WebGL · Released Dec 2025 · Mostly Positive

- Shipped a free-to-play PvP brawler. Architected multiplayer on Photon Fusion; deployed and operated dedicated servers on AWS with DevOps.
- Diagnosed and fixed a session-length latency climb (20→60 ms Windows, 40→100 ms WebGL) caused by piled-up per-frame work on WebGL's single thread — cut update frequency/payload and removed unneeded replicated variables; ping now stays flat for the whole session.

The Cursed Hour — 4-Player Co-op Survival Horror

Unreal Engine 5 · Steam · Released Nov 2024 · 129 reviews, Mostly Positive

- Pitched the original concept and owned the core multiplayer systems through to ship: ghost AI, lobby/session management, text and voice chat.
- Integrated Epic Online Services and the Steam SDK in parallel for a planned cross-platform rollout, keeping the session layer backend-agnostic.

DinoMap Explorer (Unity, Android & iOS, in development, Team Lead) — location-based AR collection game; built the AR capture flow, in-game encyclopedia and NFT integration, with systems reused across other studio titles.

Experience

Senior Game Developer — Fiftyfive Gaming Studio Pvt Ltd

Oct 2021 – Present · Jaipur, India · Teams of 5–6

- **Rift Riders** (UE, iOS/Android): proposed the concept, then built endless track generation, the vehicle pawn, quest/task systems and Firebase/Play Services integration.
- **Fight Hero** (Unity, iOS/Android): owned the mech combat loop, enemy waves and progression balancing; directed the art team on combat animation.
- Fixed a persistent iOS `bad_weak_ptr` crash caused by Firebase linking twice (Unity prebuilt libraries alongside EDM4U's Swift Package Manager resolution).
- **Combat animation packs** (Fab, ArtStation): led the product from idea to store, ~$6,000 revenue (see below).

Unreal Game Developer (Intern) — Hyperreality Technologies · Jun–Oct 2021 — sole developer on **Robo XR** (UE, Meta Quest), a robot build-and-battle VR game shipped to the Meta Quest Store: robot assembly, combat, enemy AI, DLC support.

Independent Products & Commercial Publishing

Seven commercial products designed, built and published solo on Fab and ArtStation; full engineering detail on the two flagship frameworks above.

- **Hitz GeoMap** (Fab · site) — Blueprint-only UE5 plugin streaming real-world GPS map data from 5 tile providers (OSM, Mapbox, MapTiler, Stadia, VersaTiles) or a self-hosted server. Windows + Android.
- **HitzGAS Toolkit** (Fab · site) — drop-in UE5 Gameplay Ability System plugin with a live debugger and a C++ AttributeSet generator.
- **Combat animation packs** (ArtStation) — directed the artist team, built the UE integration layer; ~$6,000 revenue over two years, still earning.
- **Cozy Kingdom series** (Builder Kit · Christmas Village) — 750+ hand-authored low-poly assets for Unity and UE5, built with a custom Blender/Python procedural pipeline.

Education

B.Tech, Computer Science (Cloud Computing specialization), Poornima University, Jaipur · 2018–2022