Adrian Bedregal

Moquegua, Peru
+51 974781004 • adrian.r.bedregal@gmail.com
LinkedIn, GitHub, Portfolio

Gameplay and engine programmer with 6+ years of game development experience and 12+ years writing C++, including 3.5+ years shipping commercial AAA and AA titles in collaboration with Epic Games and other major studios using Unreal Engine 4/5. Specialised in engine systems, gameplay programming, AI systems, and editor tooling, with hands-on experience modifying Unreal Engine 5 source code under real-time performance constraints. Currently leads a 5-engineer team as Lead Programmer at Applebomb Games.

Core Competencies

- **C++ & Engine Programming**: 12+ years of C++; source-level Unreal Engine 4/5 modification; custom engine architecture (Curly Engine).
- **Gameplay & AI Systems**: Behaviour Trees, AI-driven feature architecture, adversary AI tuning, game physics (kart/vehicle specialisation).
- **Multiplayer & Networking**: Client prediction, interpolation, and replication for real-time multiplayer gameplay.
- **Editor Tooling**: Editor tools and commandlets for quest, tutorial, and inventory systems; design/automation tooling for game design workflows.
- **Graphics & Platforms**: OpenGL, DirectX 11/12, Vulkan, GLSL; Unity, Godot; Git, Perforce, Subversion.

Professional Experience

Applebomb Games — **Remote (Arequipa, Peru)**
Lead Programmer — *2025–Present*

- Led a team of 5 engineers to deliver core gameplay systems and production features for "Mark The Headless Chicken" (C++ / Unreal Engine 5).
- Created AI systems architecture, AI development tools, and Behaviour Trees for core AI-driven features.
- Optimised gameplay and physics systems to maintain stable 60 FPS frame budgets on target platforms.
- Designed architecture for core gameplay systems, UI, physics systems, and game loop integration.

Globant — **Remote (Arequipa, Peru)**
Semi-Senior Advanced Game Developer (SSr Adv) — *2024–2026*

- Redesigned UI architecture for two core features in Fortnite in collaboration with Epic Games.
- Modified Unreal Engine 5 source code to optimise networking, rendering, and UI subsystems under real-time performance constraints.
- Designed system architecture and built 4 editor tools for an unannounced AAA MMO title for a Japanese publisher (under NDA), including quest, tutorial, and inventory systems.

Bamtang Games — **Remote (Arequipa, Peru)**
Software Engineer — *2022–2024*

- Developed core kart physics and multiplayer gameplay systems for DreamWorks All-Star Kart Racing (shipped PC/console); implemented client-prediction replication for up to 8 players.
- Built a specialised physics/mechanics engine module, reducing development time by 20% across shipped titles.
- On Looney Tunes Wacky World of Sports, implemented SFX, VFX, and event-handling systems designed to scale uniformly, a UI C++ backend with a sound-system integration layer, and early concept prototypes for the in-game golf sub-game.
- Shipped Nickelodeon Kart Racers 3: Slime Speedway and Looney Tunes Wacky World of Sports.

Saint Augustin National University (UNSA) — **On-site (Arequipa, Peru)**
Volunteer Game Programmer & Instructor (C++) — *2020–2022*

- Shipped two indie titles as volunteer lead developer using a personal C++ engine (Curly Engine).
- Mentored and trained groups of approximately 10 students in C++, custom engine tooling, and Unreal Engine 4.

Education

- **Universidad Nacional de San Agustín de Arequipa** — **Arequipa, Peru**
  BSc in Computer Science — *2018–2026*
  Thesis: "Design of a visual scripting language inspired by Rust to promote good practices in video game development."
  220/224 credits (98%) completed.

Languages

- Spanish (native), English (full professional), Portuguese (full professional), Italian (limited working proficiency).