Julian David Muñoz Rodriguez

Senior Interactive Developer · Unity, C#, VR/AR · React, Three.js, WebGPU

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Medellín, Colombia · Spanish citizen · Available remotely

PROFILE

Developer with 12 years of experience in video games and VR/AR training simulators with Unity and C#. I built industrial and aviation simulators with physical hardware integration, plus multiplayer games and real-time shader tools. I also bring 3D to the web (WebGPU, React Three Fiber, GLSL). Clients include Nutresa, Grupo Éxito, Isagen, Bancolombia and international studios. I use AI assistants in my daily development workflow.

EXPERIENCE

Medea Interactiva — Video Game & Virtual Content Developer Feb 2014 – Jun 2022 · Envigado, Colombia

- **Cabin fire simulator, Airbus A320 (2015):** lead programmer. A physical extinguisher with Arduino, gyroscope and accelerometer controlled the virtual extinguisher in Unity, viewed in VR (Oculus SDK). *Unity, C#, Arduino, Oculus SDK.*
- **VR Technical Maintenance (2019–2021):** VR trainer for industrial maintenance technicians. Developer.
- **VR Meat Cutting (2020–2021):** VR simulator for hygienic meat-cutting training. Developer.
- **VR driving simulator, industrial simulation and a VR experience for Novaventa:** developer on all three.
- **Leadership Serious Game (2018–2020):** decision-making game with advanced analytics.
- **Cafet (2017–2019):** video game, VR and AR about coffee and entrepreneurship.
- Mobile, PC and WebGL apps; gamified SCORM 1.2 courses (Nutresa, Grupo Éxito, Isagen, Bancolombia); mobile apps with Flutter.

Makata Studio — Game Dev & Creative Developer Jun 2022 – Sep 2026 · Medellín, Colombia

- **Cosmodinos (2022–2023):** real-time multiplayer PC game, up to 20 players, with lobby and two game modes. *Unity, C#, Photon PUN2.*
- **Meltyn (2025–2026):** real-time material and shader preview environment for the modeling team. *Unity, ShaderLab, HLSL.*
- **TROVE (2025–2026):** 3D collectible card system in WebGPU with custom shaders and a native iOS port in Swift.
- **Larkboard (2026):** asset review platform with a custom TypeScript renderer and in-browser H.264 encoding (WebCodecs).
- Web products with interactive 3D (Peer, makata.tv, Infini, Rhezo) and the WeMoms iOS app with SceneKit.

PERSONAL PROJECTS

Bat Experience VR 2022 – present
VR experience for Meta Quest about agave pollination by bats, with flight mechanics, a pollination system and VFX. *Unity, C#, XR Interaction Toolkit, OpenXR.*

EchoCave 2026 – present
Grid puzzle game for WebGL and Android, in development with a public playtest on itch.io. Game rules in pure, unit-tested C#. *Unity 6, C#, URP, UI Toolkit.*

RokertCore open source · MIT
UPM package of reusable game patterns (service locator, event bus, state machine, undoable commands, object pool) with EditMode tests. *Unity, C#, UPM.*

SKILLS

XR & games: Unity, C#, XR Interaction Toolkit, OpenXR, Oculus SDK, Meta Quest, VR/AR, multiplayer (Photon PUN2, Netcode for GameObjects), ShaderLab, HLSL, hardware integration (Arduino)

3D & web: WebGPU, GLSL, Three.js, React Three Fiber, React, TypeScript, Next.js, GSAP

Backend & mobile: Node.js, Supabase, AWS, Firebase, Swift/SwiftUI, Flutter, Git

Languages: Spanish native · English B1

EDUCATION & COURSES

- SENA · Specialization in Mobile Application Development · Medellín, 2016–2018
- SENA · Technologist in Video Game Development · 2012–2014
- Design Patterns for Video Games with Unity 3D · Udemy (2024)
- Build a Multiplayer FPS Shooter with Unity and Photon PUN2 · Udemy (2022)
- Programming Design Patterns For Unity · Udemy (2022)