Alejandro Martínez Forner
Software Engineer

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I am a junior Software Engineer with a strong focus on gameplay systems, AI programming, and graphics development. I have recently completed a BSc (Hons) in Computer Science at the University of Hertfordshire. I have practical experience developing performance-conscious features through custom engine work and team-based game projects, including real-time rendering techniques and gameplay mechanics. With a solid foundation in C++ and experience across both Unreal and Unity, I approach development with a balance of technical depth and creative problem-solving. While my primary interests lie in gameplay, AI, and graphics programming, I'm adaptable and open to contributing wherever impactful code and smart design are needed.

Relevant Experience

We Make Monster SL
Junior Gameplay Programmer | July 2025 – October 2025

Worked remotely on an unreleased **Unreal Engine 5** project within a small development team under NDA. Contributed to multiple **gameplay** and engine-related systems using **C++** and **Unreal Engine 5**.
Implemented and iterated on **gameplay features** including **player systems**, **HUD elements**, **camera behaviour**, **cinematics** integration, and **animation**-related functionality. Also collaborated on internal **workflows** and project infrastructure using **GitHub**, **TortoiseSVN** and **Tailscale**.
[C++, Unreal Engine 5, GitHub, TortoiseSVN, Tailscale]

Born To Rise – Raccoons Making Games
Unreal Engine / AI Programmer | September 2022 – July 2023

Developed as part of a 15-person team using **Unreal Engine** and **Perforce**, **Born To Rise** is a published **2,5D action-platformer**.
Owned the complete **AI system** for a custom enemy, including behaviour logic, animation state machines, movement, and combat interactions. Integrated the enemy seamlessly into gameplay using **Unreal's behavior trees** and **animation blueprints**.
Also implemented core menu systems and contributed to gameplay hazards such as bounce platforms, ensuring responsive feel and consistent design across levels.
[C++, Unreal Engine, Perforce, Trello]

YouTube Trailer | Steam link

Requiem Engine
Graphic Engine / C++ Programmer | September 2022 – June 2023

Co-developed a custom graphics engine from scratch alongside one partner, using **C++**, **OpenGL**, and **DirectX**, and architected around a component-based **Entity Component System** (ECS).
Focused on developing the lighting pipeline, including a fully integrated **shadow mapping** system and **deferred shading** for efficient rendering.
Implemented advanced visual features such as **water caustics**, **instanced rendering** for optimized draw calls, and ported the entire engine to **DirectX 11** to expand platform compatibility.
[C++, OpenGL 4.6, GLSL, HLSL, DirectX11, GitHub, RenderDoc]

YouTube Trailer

Education

BSc (Hons) Computer Science | Hatfield, United Kingdom

University of Hertfordshire | September 2024 – May 2025

One-year top-up with a focus on core computer science principles including algorithms, software engineering, systems programming, and applied computing. Emphasis on **object-oriented programming**, **data structures**, and real-world **software development practices**. Includes modules in cybersecurity, IoT, robotics, and concurrent systems, with hands-on experience in both individual and group-based technical projects.

HND in Computing, BTEC Level 5 | València, Spain

ESAT (Escuela Superior de Arte y Tecnología), September 2020 – July 2023

Completed a Higher National Diploma focused on programming and systems design, with an emphasis on game development and software engineering using **C++**. Worked extensively with **Unreal Engine** and **Unity** in both solo and group projects. Developed and shipped two titles: a mobile game on Android and a 2,5D platform game on **Steam**. Built tools using C++ and **SQL**, and gained experience with **low-level programming** through projects in **assembler**. Developed strong **teamwork** and project planning skills through agile-based development and frequent presentations. **[Graduated with Distinction]**

Additional Information

Languages

Native Spanish and Catalan speaker.
Advanced English (C1 level).