Valentina Liberona Zúñiga

ABOUT ME

Unity Game Developer with over 4 years of experience creating immersive gameplay systems and high-performance mobile and VR games. Skilled in C#, shader programming (HLSL, Shader Graph), and performance optimization for resource-constrained platforms like iOS, Android, and Meta Quest. Proficient in gameplay systems, 3D modeling, and visual effects. Passionate about crafting engaging experiences through technical excellence, strong problem-solving, and iterative game design.

Experience

Unity Developer, Pignus   Jan 2023 – Present

- Developed and optimized gameplay mechanics for mobile and VR platforms using Unity and C#, targeting iOS, Android, and Meta Quest.
- Focused on performance optimization, including lightmap baking, reflection probes, and HLSL shaders for improved frame rates.
- Built and maintained modular gameplay systems (camera, input, AI, player control).
- Specialized in 3D asset creation and optimization using Blender and Substance Painter, targeting stylized and high-fidelity assets.
- Integrated VFX, post-processing, and UI animations to ensure polished visual feedback and performance.

Frontend Developer, Capitalizarme   May 2022 – Mar 2023

- Developed frontend interfaces using React and TypeScript, applying best practices in game UI/UX design.
- Collaborated with designers and backend engineers to develop an interactive real estate product and a school system.

Unity Developer, University of Oxford   Mar 2022 – May 2022

- Developed shaders for AmblyopiaVR, integrating clinical logic into engaging Unity gameplay.
- Ported MATLAB scientific code into HLSL shaders to accelerate stereo vision training in real-time.

Unity Developer & UI/UX Designer, University of Chile   Feb 2020 – Jun 2021

- Designed and implemented an immersive VR simulation in Unity using C#, featuring AI-driven workers and interactive environments.
- Modeled and animated 3D characters and objects using Blender and Unity's Animator.
- Created visual effects with Shader Graph to enhance realism and engagement.
- Optimized lighting, occlusion, and batching for smooth experiences on Meta Quest.
- Prototyped AI-based NPC interactions using character behavior trees and user input.

Full-Stack Developer, Pulso Escolar   Jan 2019 – Dec 2019

- Developed an educational analytics dashboard using Vue.
- Built dynamic visualizations for time-series, filters, and responsive updates across multi-school enrollment data.

Skills

- **Game Development:** Unity, C#, Object-Oriented Programming, Shader Graph, HLSL
- **Optimization:** Lightmapping, Occlusion Culling, Batching, Mobile Performance
- **3D Art & VFX**: Blender, Substance Painter, VFX, Post-Processing, Lighting
- **Animation: Unity Animator, Inverse Kinematics, Rigging**
- **UX/UI:** Game UI Systems, UI Animation, Interactive Feedback
- **Languages:** Spanish (native). English (B2)

Education

Bachelor of Engineering in Computer Science, University of Chile