

Léo-Paul Vray

Gameplay Programmer

Junior Unity Gameplay Programmer specialized in VR, multiplayer systems, and performance optimization. Experienced with Unity, Mirror, WebSockets, URP, Jenkins CI/CD, and dedicated Linux servers through academic, personal, and internship projects.

France | Available from August 2026 | Open to relocation / hybrid / remote

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PROFESSIONAL EXPERIENCE

VR Programming & Optimization Intern : Streetlab, Institut de la Vision

Feb 2026 - July 2026

Unity, VR (Quest 3), URP, WebSockets, Performance Tuning

- > Developed a **VR psychophysics research application** tailored for low-contrast visual threshold experiments using URP.
- > Custom **TCP/WebSocket** client-server architecture to handle high-frequency data streaming between a PC tablet and headset.
- > Profiled and eliminated CPU/GPU bottlenecks by restructuring layer collision matrices and implementing **runtime mesh combining**.
- > Architected a high-performance GPU-downscaled color inspector reducing **Garbage Collector** allocation and frame freeze
- > Implemented a multi-threaded data logging system to continuously capture HMD transform, trajectory errors, and eye-gaze angles without impacting the Main Thread.

PROJECTS

Project Survivor (Graduation Project)

Oct 2025 - Present

Unity, Mirror, Tools, Networking, Gameplay, Unity Profiler

- > Architected a **server-authoritative** online action RPG framework using Unity, **Mirror**, and **dedicated Linux servers**
- > Engineered **dynamic multiplayer instancing** technology for scalable **session-based** gameplay
- > Designed a Path of Exile-inspired loot system with procedural affixes, rarity progression, and randomized itemization
- > Implemented **persistent player progression** systems, including inventory, equipment, and character **data storage**
- > Built a fully **automated CI/CD infrastructure** with **Jenkins** and GitHub integration for continuous deployment
- > Developed **network optimization** solutions to improve synchronization accuracy and reduce bandwidth usage
- > Created scalable gameplay systems supporting real-time combat, progression, and **cooperative multiplayer experiences**

TimeCapsule

Jan 2025 - May 2025

Unity, Gameplay, Optimization

- > Developed custom shaders and visual effects using **Shader Graph** and **HLSL** to enhance gameplay feedback and environment visuals
- > Integrated and configured 3D assets, materials, animations, and environment systems within Unity
- > Created dynamic lighting setups and atmospheric effects to improve immersion and visual consistency
- > Managed the project's audio implementation using Wwise, including spatial sound and event-driven audio systems

Creallies

Oct 2024 - Dec 2024

Unity, Mobile, UI

- > Designed modular UI systems and managed **scene transitions** for a scalable and maintainable architecture.
- > Profiled and optimized mobile builds using **Unity profiling** tools to improve runtime performance
- > Implemented data persistence through **JSON** serialization and deserialization for save/load functionality

More on my website...

EDUCATION

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2021 - 2026

Bachelor's Degree in Computer Science & Game Development (RNCP 6)

SKILLS

Programming Languages: C, C++, C#, Lua, HLSL, Bash

Game Engines: Unreal Engine5, Unity

Tools: Git, Visual Studio, TortoiseSVN, WPF, Wwise, Jenkins, UVCS, WebSockets, Unity Profiler, Photoshop, Blender, Jira

Languages: English(fluent-C1), French(fluent-C1)

Soft Skills: Communication, Autonomy, Curiosity, Analytical Thinking

OTHER EXPERIENCES

Order Picker

2024

- > Time management | Team collaboration | Working under pressure

Kitchen Assistant

2017

- > Adaptability | Fast execution | Communication

INTERESTS

- > Sport: Weight Training, Climbing
- > Video Games: League Of Legends, Path of Exile (Hack'n Slash)