

LEONNEL HAMMEL

Gameplay & Tools Programmer

✉ leonnelhml@gmail.com

📍 Leoleonmiel

🌐 LinkedIn

📍 Canada

🌐 Portfolio (more info on my website)

SKILLS

Soft Skills: Communication, Teamwork, Proactive, Curious, Feedback-oriented, Strong Ownership

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

Game Engines: Unreal Engine 5, Unity

Development Tools: Git, Visual Studio, Rider, WPF, Winforms, Fmod, Wwise, Jira, Tortoise

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

PROFESSIONAL EXPERIENCE

Software Engineer - R&D Unreal/ C++ - *Sogeclair - Oktal SE* 🔗

Toulouse, FRANCE
April 2026 – Present

🔗 Unreal Engine 5 C++ 3D Gameplay Rendering

- Developing a vehicle gameplay demo using **Unreal Engine's** Chaos Modular Vehicle system, **customized an extensive C++ codebase** to meet specific requirements for a live showcase at ([Eurosatory 2026](#) 🔗)
- Developing an unannounced train simulation featuring large-scale world(140+ km²), Mass Entity, AI pedestrian & Vehicle simulation
- Researching and implementing a **performance-focused demo** utilizing the Unreal Engine NVIDIA branch, specifically **optimized to minimize VRAM consumption**

Software Engineer - Game Programming Intern - *VRAI Studio* 🔗

Albi, FRANCE
June 2025 – August 2025

🔗 Unity VR/XR Mobile C# Zenject

- Developed **VR gameplay mechanics** in Unity, improving interaction quality ([Aventure du Compost](#) 🔗)
- Optimized **standalone VR performance** on PICO headsets, resulting in smoother framerates ([RecyclageVR](#) 🔗)
- Built internal **Unity tools** in C#, reducing content production time.
- Implemented a **mobile IAP system**, improving monetization flow ([BunnyKids](#) 🔗)
- Refactored architecture using **Zenject and event-driven patterns**, enabling faster feature scaling

Software Engineer Assistant / UX Programmer - *Swisscom* 🔗

Lausanne, SWITZERLAND
June 2024 – August 2024

🔗 C++ WPF Git CI/CD

- Optimized a **C++ anomaly detection tool**, reducing memory usage from 20% to 7%.
- Implemented UX-driven features with designers, improving usability and consistency
- Reviewed and documented code, increasing maintainability and team efficiency
- Collaborated with cross-functional teams

PROJECTS

Generalist / Tool Programmer – *Erebus*

Nîmes, FRANCE
Oct 2025 – May 2026

🔗 Unreal Engine C++ Gameplay Physics

- Developing core **gameplay and physics systems** in Unreal Engine (C++), supporting boat-based mechanics
- Implementing **navigation and water physics**, improving realism and movement stability
- Integrating **animation and gameplay systems**, ensuring cohesive and performant behavior

Engine/Tool Programmer - *BitForge(Graduation Capstone Project)*

Nîmes, FRANCE
Oct 2025 - June 2026

🔗 DX12 C++ 20 MASM x86_64 3D graphics Shader Rendering

- Programming in MASM x86_64 with optimized instruction handling and memory management
- Developing a C++ front-end providing structured input parsing and control of assembly execution
- Implementing rendering pipeline using DirectX 12
- Implementing shader using HLSL & Slang

Online / Tool Programmer - *SUNA* 🔗

Nîmes, FRANCE
Jan 2025 – May 2025

🔗 C# Unity ECS Netcode for Entities Multiplayer

- Built **server-authoritative multiplayer** in Unity ECS, enabling deterministic FPS gameplay
- Implemented **low-latency netcode** with prediction and rollback for responsive interactions
- Developed **matchmaking and debugging tools**, improving multiplayer stability

EDUCATION

Creajeux

Bachelor's Degree in Computer Science & Game Development

Nîmes, FRANCE
Sept 2021 – May 2026

Cegep du Vieux-Montreal

DEC-Sciences Humaines/Optimonde

Montreal, CANADA
Aout 2017 – Aout 2018