

Arthur PINEL

Engine / Systems Programmer - C++

Paris, France
Open to international positions
✉ arthur.pinel@ensiie.eu
🌐 leperuvienn.github.io
LinkedIn arthur-pinel-dev
LePeruvienn

Profile

Engineering student at ENSIIE specializing in **engine programming** and **real-time systems**. Professional experience in **C++** for **3D engines**, **multiplayer networking**, and **performance optimization**. Highly interested in **engine architecture** (ECS, Scene Graph), **low-level systems**, and **real-time rendering**. Seeking an **international internship** in game development focused on **Engine**, **Tools**, or **Gameplay**.

Skills

- Core Systems **C++ (Modern 17/20)**, Engine Architecture (**ECS**, **Scene Graph**), **Memory Management**, Entity Pooling, **Multithreading**.
- Maths **Linear Algebra** (Vectors, Matrices, **Quaternions**), Trigonometry, **Geometry for Collisions**.
- Networking Real-time **Client/Server architecture**, Packet Serialization/Compression, **Movement Prediction** (Kalman Filter).
- Graphics **OpenGL**, **Rendering Pipeline**, Scene Graph management, 3D Real-time Visualization.
- Tools Git, **CMake**, **Visual Studio**, Linux, Unity.
- Languages French (Native), Spanish (Native), **English (TOEIC B2 - Professional working proficiency)**.

Experience

- 2025–Present **Software Engineer**, *Dassault Systèmes*, Apprentice
 - Actively maintaining and optimizing a high-performance 3D scene graph using C++.
 - Refactoring and modernizing legacy codebases to C++17/20 standards.
 - Building internal debugging tools to improve engine development workflow.
 - Implementing Unit Tests to ensure engine stability and prevent regressions in core systems.
- 2024–2025 **Game Programmer**, *WebGames*, Freelance
 - Enhanced a proprietary game engine by implementing core systems and gameplay mechanics.
 - Optimized spatial partitioning using a QuadTree for efficient collision detection.
 - Developed behavioral AI systems to simulate player movement and decision-making.
- 2024 **Network Programmer**, *WebGames*, Internship
 - Architected a multiplayer system using an authoritative server model.
 - Implemented custom serialization and data compression for network packets.
 - Developed smooth client-side synchronization and movement prediction using a Kalman Filter.

Projects

- 2025 **BrotAFEUR - 2D RogueLike Game Engine**, *C++, SFML, CMake*
 - Developed a custom entity system, managing rendering, and collision engine.
 - Integrated a multi-threaded architecture and a CLI-based logging/debugging system
- 2025 **FEURNite – Battle Royale**, *Unity, C#, Photon*
 - Served as Lead Developer and Architect for a multiplayer Battle Royale project.
 - Implemented network synchronization for complex inventory and combat systems.

Education

- 2025–2028 **ENSIIE**, *Master of Science in Computer Engineering*, France
Diplôme d'ingénieur - Game Development Club Member, Game Jam Participant : CStudio Game Jam, UNIJAM
- 2022–2025 **Université Paris-Saclay**, *Bachelor of Science in Computer Science*, France
BUT Informatique - Specialization: Application Development.