

Nicolas Savy-Larigaldie

Gameplay Programmer

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📍 Cahors, France

PERSONAL PROJECTS

Kotono Engine (March 2023 - Present)

Technical Programmer | C++, Vulkan, C#, OpenGL

- Created a custom 3D game engine, originally developed in C# using OpenGL, before executing a full architectural rewrite in 2025 to modern C++ and the Vulkan API for hardware-level control and maximum performance.
- Designed a modular multi-project architecture using CMake, separating subsystems, such as rendering, core, reflection, and editor to maximize long term maintainability and drastically reduce build times.
- Engineered subsystems such as a 2D widget system, dynamic 3D entity management, basic physics simulation, and a deferred lighting renderer, peaking at 324,000 updates per second and 1,236 FPS for thousands of objects.
- Implemented a GPU driven rendering pipeline via Vulkan, using dynamic rendering with bindless resource management (descriptor indexing), immensely reducing CPU overhead.

ACADEMIC PROJECTS

Developed multiple prototypes, participated in game jams, and shipped full-cycle games in multidisciplinary teams (4-10 members) over development periods ranging from a few days to 9 months.

Le Souveniste (October 2025 - June 2026)

Gameplay Programmer & Technical Artist | Unreal Engine 5

- Led gameplay programming and iterative prototyping, developing movement, interaction, and dialogue systems while collaborating directly with the design team to iterate on and refine core mechanics.
- Bridged the gap between gameplay and visuals by implementing custom shader materials, designing animation state machines, and optimizing static and dynamic lighting to match the art team's vision.
- Managed the project's structure and version control, writing convention documents for Git and asset integration, troubleshooting merge conflicts and ensuring smooth asset integration across disciplines.
- Acted as the team's scrum master, organizing weekly stand-up meetings to track individual progress, setting up deadlines for regular builds, and ensuring the project stayed in scope.

DEGREES

Bachelor's Degree in Game Design & Development at e-artsup Toulouse (2023 - 2026)

Official French certification: "Titre RNCP Niveau 6 (n°40867)"

- Specialization: Creative Coding, Gameplay Programming, and Game Architecture.

SKILLS

Languages: C++, C#, GLSL, Python, JavaScript, Dart

Game Engines: Unreal Engine, Unity

Graphics APIs & Tools: Vulkan, OpenGL, Git, Visual Studio, CMake, NVIDIA Nsight

Other Tools: Blender, Adobe Substance Painter/Designer, Photoshop