

Gabriel Eder

Game Programming student at Futuregames focusing on Game Engine and Graphics Programming in C++, looking for a Software Engineering Internship.

PROJECTS

Full write-ups available at: www.gabrieleder.com

Gibbon Engine | *Modern game engine written in C++ and Vulkan*

JUNE 2026 - PRESENT, Solo

- Vulkan 1.3 renderer with a render graph that derives its own barriers, bindless resources, GPU-culled indirect draws and clustered lighting
- Dynamic cascaded global illumination from ray-traced probes (DDGI) and denoised ray-traced reflections
- Reflection code generator where annotations generate serialization, inspector UI and automatic AngelScript bindings
- Cut frame time from 9.67 ms to 6.42 ms on the Bistro scene by caching unchanged shadow cascades

Loka | *Water Rendering and Simulation in C++, Slang and OpenGL*

AUGUST 2026 - SEPTEMBER 2026, Solo

- GPU height-field water simulation solving the 2D wave equation, with a stable timestep derived at runtime from the Courant condition
- Ray-traced water shading with refraction, Beer-Lambert absorption, exact Fresnel and total internal reflection (Snell's Window)
- Depth-independent caustics by storing the surface as a lens (Jacobian coefficients) instead of a brightness map
- Slang shaders with automatic differentiation and hot reload, profiled per pass with GPU timestamp queries

Fate | *Online Co-Op FPS created with Unreal Engine 5 (UnrealAngelscript)*

MAY 2026 - JUNE 2026, Team of 10

- Networked first and third person animation tech for three heroes on a shared rig
- Rain and wet-surface rendering in a custom UE5 fork, including a Lumen fix in engine source to support a custom celshading model
- Reusable game-feel components for viewmodel rendering and camera modifiers (sway, bob, shake, ADS)

Frogga | *Physics-based Puzzle Metroidvania created with Godot 4*

SEPTEMBER 2024 - FEBRUARY 2025, Team of 2

- All gameplay and tool development
- Active-ragdoll animation system driven by Hooke's law on Jolt Physics
- Behaviour Tree tooling, allowing enemies to be built without code
- General purpose save system, supporting any Godot variant
- Won Game of the Year and Audience Choice at Make A Game

EDUCATION

Futuregames, Stockholm | *Game Programming*

Specialization starting October 26th | Engine Programming

SEPTEMBER 2025 - DECEMBER 2027

Sundsta-Älvkulllegymnasiet, Karlstad | *Technology Programme*

Specialization | Game Development

AUGUST 2022 - JUNE 2025

Stockholm, Sweden

+46 76 791 87 83

gabriel.eder@me.com

[GitHub](#) | [LinkedIn](#)

www.gabrieleder.com

SKILLS

Programming Languages

C++, C, C#, AngelScript, Rust, GDScript, Python, Lua

Shading Languages

HLSL, Slang, GLSL, WGSL

Engines

Unreal Engine, Godot, Unity

Tools & VCS

RenderDoc, NVIDIA Nsight, Git, Perforce

Teamwork

Worked on 5 collaborative projects with mixed disciplines with a range between 2-10 group members.

Communication & Collaboration

Served as a coordinator for interdisciplinary work where close collaboration between Artists & Tech was vital.

AWARDS

Game of the Year

& Audience Choice

Make A Game 2024-2025

Game Development Project for Technology Programme students, run by UF Värmland, The Great Journey and Embracer Group.

LANGUAGES

English, Fluent

Swedish, Native