

Gabriele Novello

Graphics programmer with experience in Vulkan and real-time rendering systems.

+39 388 792 6877
g.novello1006@gmail.com
frol3z.github.io/portfolio

EDUCATION

University of Turin 2024 – Present
M.Sc., Computer Science Turin, Italy

- Part-time position: translated Computer Graphics course slides from Italian to English
- Master's thesis (in progress): modern DDGI-based global illumination method using hardware ray tracing in Vulkan
- Major topics studied: Computer Graphics, Virtual Reality Systems, Image Processing & Computer Vision, Parallel & Distributed Systems, Machine Learning & Deep Learning

University of Turin 2021 – 2024
B.Sc., Computer Science Turin, Italy

- Final grade: 110/110, cum laude
- Bachelor's thesis: game state saving approaches in gaming
- Developed a small roguelite game in Godot to test the methods proposed in the thesis

PERSONAL PROJECTS

Felina 2025 – Present
Real-time Vulkan Renderer

- Built with C++, modern Vulkan (1.3+), CMake and HLSL
- Features PBR materials, deferred shading and multiple punctual lights support
- Includes Dear ImGui user-interface and scene loading through the glTF file format

Monte Carlo Denoiser 2024 – 2025
Standalone Tool / Research

- Developed and trained a ResNet-based neural network in Python using PyTorch to denoise Monte Carlo renderings using Disney's published dataset and methodology

Zeus 2023 – 2024
Autodesk Maya Plugin

- Qt-based Python plugin for Autodesk Maya 2025
- Simplify the user interaction with the particle systems used for clouds, rain and wind using a custom and intuitive user-interface

TECHNICAL SKILLS

Programming & APIs

C/C++ Python
Vulkan HLSL CUDA

Computer Graphics

Real-time Rendering GPU Architecture
Linear Algebra

Tools

Git RenderDoc CMake
Visual Studio Godot Unreal Engine

LANGUAGES

- English · proficient
- Italian · native

INTERESTS

- Music: classic and electric guitar, music production, composition
- Cinematography, filmmaking and storytelling
- Digital and film photography
- Videogames and game development
- Learning: computer science, physics and foreign languages (currently Norwegian)