

Gabriele Garofalo

Gameplay / Systems Programmer · Unreal Engine · C++ · Real-Time Systems

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[Portfolio](#) · [GitHub](#) · [LinkedIn](#)

Profile

Gameplay / Systems Programmer specialized in **real-time game development** with a strong focus on **Unreal Engine** and **C++**. Background in gameplay programming, character control, and camera systems (3C), working on interactive and performance-sensitive applications. Proven ability to deliver complete game projects, including a **commercial Steam release** and publicly released tools. Solid experience with **Unity (C#)**, supported by a strong foundation in math, physics, and system design.

Core Skills

- **Game Development:** Unreal Engine, Unity, gameplay systems, character controllers, camera systems (3C)
- **Programming Languages:** C++, C#
- **Software Engineering:** OOP, Design Patterns, State Machines, Data-Driven Systems
- **Real-Time Systems:** Input handling, real-time update loops, simulation logic
- **Math & Physics:** Linear algebra, 3D math, physics-based reasoning
- **Tools & Pipelines:** Custom engine tools, editor extensions, Git Flow

Experience

Software / Systems Programmer

10/2024 – Present

Villains Studio

- Designed and implemented a responsive **real-time movement system** for a third-person action shooter (input abstraction + camera behavior).
- Developed a scalable **AI encounter and wave system** supporting procedural generation and endless modes.
- Built reusable gameplay and system-level components with a focus on maintainability and performance.
- Collaborated closely with artists and designers, providing engine-level support, tooling, and pipeline improvements using Unreal Engine and Git Flow.

Project Link

Game Programming Teacher

02/2025 – 11/2025

Event Horizon School

- Taught OOP in C++/C# (architecture, patterns, debugging), real-time programming principles, game engines (Unreal Engine 5, Unity3D), 3D math and physics foundations.
- Led an introductory visual scripting in Unreal Engine 5 course for non-programmers, translating technical constraints into accessible concepts.
- Mentored students on clean code practices, version control, and collaborative development workflows.

School Website

Unreal Engine Tools Developer

03/2025 – 08/2025

Freelance

- Developed a high-performance **state machine plugin** for Unreal Engine 5.x and released it on the **FAB Marketplace**.
- Authored technical documentation for different user levels and ensured smooth integration with engine workflows.

Marketplace Link

Software / Systems Programmer

02/2024 – 11/2024

Academic Project

- Architected a multi-character control system with shared and character-specific logic, emphasizing modularity and scalability.
- Implemented dynamic camera transitions and real-time interaction systems.
- Managed the **full Steam release pipeline**, including Steamworks SDK integration (achievements, cloud saves).

Steam Release

Education

Game Programming Diploma — Event Horizon School, Milan

2022 – 2025

Physics Studies — University of Milan

2018 – 2022

Art High School Diploma (Graphic Design)

2018

Languages

Italian (Native) · English (B2)