Gabriele Garofalo

Software / Systems Programmer · C++ / C# · Real-Time Applications

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Portfolio • **GitHub** • **LinkedIn**

Profile

Software / Systems Programmer with strong experience in **C++**, **C#**, and **real-time systems**. Specialized in interactive architectures, simulation-oriented logic and tooling. Proven ability to deliver complete products, including a **commercial Steam release** and a **public Unreal Engine plugin**. Focused on performance, maintainability, and clean system design.

Core Skills

- **Languages:** C++, C#
- **Software Engineering:** OOP, Design Patterns, State Machines, Data-Driven Systems
- **Real-Time Systems:** Input systems, camera systems, character controllers, simulation logic
- **Tools & Pipelines:** Unreal Engine tools, Unity3D tools, custom plugins, Git Flow
- **Math & Physics:** Linear algebra, 3D math, physics-based reasoning

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)