MARC GABERNET RODRÍGUEZ

CONTACT

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🌐 Check my portfolio!

ABOUT ME

I'm an aspiring **video game developer** and **programmer** with the goal of creating engaging and memorable expiriences for players and always continue to learn.

Proficient in **C++, C#** & programming in general, with extensive experience in **game engines** as well as a **degree in mathematics.**

I offer a technical profile that excels in **problem-solving** and complex challenges related to gameplay mechanics, physics, maths and AI with a track record of **adaptability** and **versatility**.

I consider myself a very **creative** and **motivated** person and I like to mantain mylsef active by practicing sports like bouldering, white-water kayaking and hiking while enjoying nature.

SKILLS

- **Languages:** C++, C#, C, Java
- **Game Engines:** Unity, Custom Engine
- **Tools:** Github, Visual Studio, ClickUp
- **Graphics:** OpenGL
- **Modelling:** Blender
- **Soft skills:** Problem-solving, Adaptability, Teamwork, Creativity

LANGUAGES

- **Catalan and Spanish** (native)
- **English** (IELTS C1 certificate/ studied abroad)

PROJECTS & EXPERIENCE

Hellheim Engine - Rolling Barrel Studio

- **Custom game engine** developed as master's degree final project with a team of 19 programmers.
- Implemented using **C++** and **OpenGL** and **ImGui**.
- Developed **Physically Based Rendering shaders** using the Phong BRDF model.
- Implemented **timers** and managed **framerate** in the engine.
- Worked with GLTF files and imported the **animation data** into the engine, implemented **skinning** for 3D models and integrated the **animation component** for game objects.

Chrysalis

- Collaborated on a top down shoother game made with the **Hellheim engine**, with a team of 28 people, programmers, artists and designers.
- Helped implement the player's animations.
- Worked on the player's **state machine** and weapon, movement and dash behaviour, focusing on **responsiveness and game flow**.
- Focused on **level design**, working on level blockouts adding the assets to the level.
- Creatively created miscellneous scripts for different objects to bring the levels to life and enhance the overall experience.
- Worked in **enviromental & prop VFX** to improve the visuals of the level.

Virtual simulation of a laparoscopy - Numerical Factory

- Collaborated with Numerical Factory, a UPC's mathematics department project to develop my bachelor's degree final project.
- Worked in **Unity** to develop a **VR** simulation of a medical procedure.
- Focused on simulating the **physics** of a soft body object and the interactions with the laparoscopic tools.

EDUCATION

Master's degree in Advanced Programming for AAA Video Games
UPC (2023 - 2024)

Relevant skills developed: C++, Game & Level design, Engine & Gameplay systems, OpenGL, Unity.

Bachelor's degree in Mathematics
UAB (2019-2023)

Relevant skills developed: Logic, Problem-solving, Modelling & Optimization, Abstaction, C, Java.

11th grade
Afton Cental School, NY, USA (2017-2018)

Relevant skills developed: English, Adaptability.