Oriol Gallego Vazquez

Software Developer specializing in Game Engine Programming, with experience in C++, Python, Javascript, OpenGL, and building real-time systems.

Personal Info

Name: Oriol Gallego
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Location: Barcelona, Spain
Gender: Male
Date of birth: 20/11/2001
English level: C1

Additional Information

GitHub: /OriolGallego2001
LinkedIn: /oriol-gallego-vazquez-778266227/
Portfolio: /oriolgallego.github.io/

Skills

C++: Skillful
Python: Experienced
Java: Skillful
Javascript: Skillful
OpenGL: Average
ImGui: Skillful
GLTF: Skillful
Algorithm Design: Skillful
Linear Algebra: Skillful
Data Structures: Skillful
Spatial Algorithms: Skillful
Memory management: Average
Profiling: Average
Software Development Life Cycle: Skillful
Agile & Waterfall Methodologies: Average

Work Experience

FullStack Developer

Impemer SL, Cerdanyola del Vallès

April 2023 – Present

In this role, I am primarily responsible for the development of APIs using Python and the Django framework, as well as front-end components using Vue.js.

These APIs support real-time indoor positioning systems, utilizing Bluetooth Low Energy (BLE) tags and base stations to track movement and location, with an AI model powering the positioning logic.

Additionally, I manage Docker-based deployments, where I create and configure Docker images, adapt existing CI/CD pipelines, and handle the deployment of applications to servers, ensuring smooth and scalable operations.

I also spearheaded the development of an Android app for a project that integrates Session Initiation Protocol (SIP) for voice communication, real-time positioning, and a residence management system.

In this project, I was responsible for implementing all functionalities, based on pre-designed XML layouts (screens, icons, buttons).

I actively contributed to key decisions regarding app development strategy and provided input on functionality and progress.

Education

Master in Advanced Programming for AAA Video Games

UPC School, Barcelona

Sept 2023 – Oct 2024

During my master's, I significantly advanced my C++ skills while working in a team of 15 programmers and 8 artists to simulate a real-world production pipeline. We developed a custom game engine in Visual Studio using OpenGL, ImGui, and other open-source libraries, and later built a game using that engine. My key responsibilities included designing and implementing an animation system, a navigation system, an ImGui-based node editor for animation state machines, and creating a binary resource pipeline for loading and saving animations from GLTF files.

Bachelor's in Computer Science

Universitat Pompeu Fabra, Barcelona

Sept 2019 – Jul 2023

During my Computer Science degree, I developed a strong foundation in mathematics (linear algebra, calculus, statistics) and algorithm design. I gained hands-on experience with programming languages such as C++, Python, Java, C, and JavaScript. I studied the software development lifecycle, applying methodologies like Agile and Waterfall, and worked on several key projects that can be found in my portfolio.