# **Héctor Ochando**

#### SOFTWARE ENGINEER

Valencia, Spain
hector.ochando.casan@gmail.com
Porfolio
Linkedin

#### **ABOUT**

I am a junior programmer who recently graduated from ESAT (Valencia). During my training, I have gained experience in developing eye-catching rendering techniques and implementing innovative and engaging game mechanics.

I am passionate about game engines and modern rendering techniques. I strive to keep up to date with trends and advances in the industry, and enjoy working on projects that allow me to combine my creativity with my technical skills.

I have worked on a variety of projects both individually and as part of a team, where I have demonstrated my ability to collaborate effectively and bring innovative solutions to technical challenges.

#### RELEVANT EXPERIENCE

#### **Tiny Terrors**: Junior *Programmer*

SEPTEMBER 2023 - PRESENT, VALENCIA, ALREADY IN STEAM

Developing Shelly Manor game with Unreal Engine 5 and C++.

Developed a modular camera system and other gameplay features.

Work focused on artificial intelligence.

#### **EDUCATION**

### ESAT, HND in Computing, BTEC Level 5

OCTOBER 2021 - JULY 2024, VALENCIA

I studied for three years at ESAT, a school specialized in video game development, where I became proficient in C and C++, got a good command of C# and acquired solid knowledge in Unity, especially in Unreal Engine. In addition, I gained knowledge in ARM Assembly, as well as OpenGL and DirectX 11 as main graphics APIs. As well as developing and publishing a game as a final project.

#### **SKILLS**

C++ C C#
Unreal Unity
DirectX11 DirectX12 OpenGL
HLSL GLSL
Git Perforce
Render Doc Nsight PIX

Premake

#### **LANGUAGES**

Spanish: Native Proficiency

English: IELTS 6.0 (2024)

Visual Studio CMake

Catalan: Native Proficiency

#### STUDENT/PERSONAL PROJECTS

## Andromeda Engine: Graphics Engine

Developed an engine written in C++ with DirectX 11 and OpenGL as render backends. Working with APIs such as PhysX and OpenAL. More info here.

## Multi Agent System: IA Demo

Developed a demo of a multi agent system with different agent roles. Working with Unity and C#. More info here.

## **ADTs:** Low Level Programming

Developed an API written in C / C++ composed by the following ADT: Memory Node, Vector, List, Double Linked List, Movable Head Vector, Circular Vector, Circular List, Circular Double Linked List, Queue, Stack. API severely influenced by the C++ STL.

## **Memory Manager:** Low Level Programming

Memory management with a custom Memory Manager.

Developed a custom Memory Manager, following the arena allocator pattern which I programmed in C to manage dynamic memory allocation and catch any memory leak.

# Balance Board Game: Gameplay Programming

A game created using the wii balance board as the only input. Working with Unity and C#. More info here.

# **OpenGL demo:** Graphics Programming

First time using any render API and reimplementing the backend of a tiny custom render library. And creating a demo to show the...

## Mobile Game: Gameplay Programming

An endless runner game inspired by Subway Surfers. Developed with Unity and C# with mobile as target.

## **Data Base Visualizer:** Low Level Programming

A database visualizer and field editor written in C++ with a custom framework.

# **Several ASM Demos:** Low Level Programming

Voxel Raytracer terrain (link here) and Landscape terrain based on a height map. Programmed in C with an SDL