João Pedro Marinheiro
Game Developer (C++/C#)

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About:

Game developer with a special interest in game engines, computer graphics and artificial intelligence. I've worked with a variety of game engines and languages, though I do tend to prefer more systems-oriented languages such as C++.

Experience:

2023-present

Ubisoft Annecy | Star Wars Outlaws | Gameplay Programmer

Working as a gameplay programmer with a focus on AI in the open world Star Wars game being developed at Ubisoft. During my time in this project I've worked as part of the ambient life team to help bring the open world to life with realistic NPCs while also allowing for interesting stealth gameplay.

2021-2023

Ubisoft Annecy | Xdefiant | AI Programmer

As an AI programmer in the Xdefiant project at Ubisoft Annecy, I worked with the C++ based proprietary Snowdrop engine. I worked in a multithreaded and networked environment, as the owner on the gameplay programming side for the player bots mandate, collaborating with designers to develop systems and tools so that the bots would be as challenging and fair as possible.

2018-2021

Fabamaq | Game Engine Programmer

Due to my experience with OpenGL and game engines, I became a key member of the Engine Architecture team, working on improving and maintaining the game engine powering FMQ's landbased games. I assisted in planning and developing several core engine systems including: sound, scripting, animation, particles, prefabs and rendering.

2016-2018

Fabamaq | Game Developer

Worked on developing and improving the common game framework powering all landbased FMQ games, using technologies like C++, OpenGL and Javascript. I worked as part of an agile and multidisciplinary team directly with designers and artists where I became familiar with the Scrum methodology. The game product lines I helped develop were released in several markets such as the Philipines, to great success.

2013-2018

Computer Graphics Student Group| Founder & Member

I helped to bring the Computer Graphics Student Group (NeCG) back to activity as a founder and director of the new NeCG. As a member of this group I contributed to internal projects and I also helped organize the monthly game developer meets in Porto, where we achieved a maximum attendance of over 100 attendees.

Skills

Programming: C/C++, C#, Javascript, GDscript, HTML5, CSS

Game Engines/Frameworks: Unity, Godot, MonoGame, OpenGL, ImGui, OpenAL

Other Tools: Git, Perforce, Valgrind, JIRA

Projects and Publications:

2020   Windward Rush | Godot 3D Arcade Racing Game

A 3D multiplayer arcade air racing game inspired by classic games from the early 2000s like Freaky Flyers developed using the Godot game engine. Players race a variety of jets through fun environments and collect powerups. It features singleplayer against AI and local split-screen multiplayer. Play a demo at:
https://jocamar.itch.io/windward-rush-alpha

2018   Caravel Engine | 2D General Purpose Game Engine

A 2D game engine built in C# on top of MonoGame. Its features include an entity-component system, integrated physics engine, scripting, nested prefabs, a fully featured level editor, and several prebuilt game components. See it at:
https://github.com/jocamar/Caravel

2017   I Hear You | Unity 3D Asymmetric Multiplayer Game

A local multiplayer asymmetrical game about echolocation created over 48 hours for the Global Game Jam (GGJ). The idea was to provide completely different experiences to the two players, the human and the monster, where one must play using only limited vision while the other plays using mostly the spatial sound. It won the award for innovation from among several dozen participants.
https://gamejolt.com/games/i-hear-you/231080

2017   A Generic Agent Architecture for Cooperative Multi-Agent Games

Paper published in: 2017 ICAART 9th International Conference on Agents and Artificial Intelligence (ICAART).

2015   Demand-side Management in Power Grids – An Ant Colony Optimization Approach

Paper published in: 2015 IEEE 18th International Conference on Computational Science and Engineering (CSE).

Education:

2011-2016   Master in Informatics and Computing Engineering
Faculdade de Engenharia da Universidade do Porto, average grade – 17

Languages:

Portuguese:	Native speaker.	Spanish:	Basic proficiency.
English:	Full professional proficiency.	French:	Basic proficiency.