DANIEL MARQUES

Informatics and Computing Engineer

SKILLS

TECHNOLOGIES

- **C/C++**
- **Git**
- **Unity Engine**
- **Python**
- **Javascript**
- **Java**
- **C#**
- **Vulkan**
- **OpenGL**
- **Unreal Engine**

INDUSTRY KNOWLEDGE

- **Object Oriented Programming**
- **Software Design Patterns**
- **Game Development**
- **Computer Graphics**
- **Multi-threading**
- **Agile Methodology**
- **Linux Operating System**

PROFILE

Informatics and computing engineer, passionate about creating masterpiece games and giving memorable gaming experiences.
Enthusiastic and experienced in Gameplay Programming.
Knowledgeable and fascinated about Computer Graphics.
My goal in life is to be a part of the development of games that are appreciated as a work of art. Games that live on the players' minds years after playing them. Games that perfectly balance great narrative, engaging mechanics and immersive environments.

EDUCATION

2015 - 2020

Integrated Master's Degree
Informatics and Computing Engineering

Faculty of Engineering
University of Porto

This five year course at one of the most noble education institutions in Portugal, helped me grow in various levels. It gave me the foundational knowledge for multiple areas inside Computer Science, while encouraging an Engineering mentality in approaching problems and allowing me to deepen my understanding of the areas I'm most interested in.
Throughout this bachelor and master's degree, I've studied mathematics, computer architecture, algorithms and data structures, computer graphics, object-oriented programming, software engineering, artificial intelligence, parallel computing, game development, virtual and augmented reality and much more.
At an engineering faculty you're also expected to autonomously learn tools and programming languages. In my case I focused on being proficient in C/C++, adopting code conventions and design patterns to write cleaner code, practicing with Game Engines, and teaching myself Computer Graphics through Vulkan and OpenGL.

PROJECTS

Knocky Shooty

Knocky Shooty is a funfair themed virtual reality casual video game. In Knocky Shooty you can play two mini-games. In the arcades, you can shoot targets with a pistol. In the tents, you can knockdown soda cans with baseballs.
The game features both natural and teleport locomotion, diegetic interfaces, gaze-based input and spatial audio.
The game was developed for *Virtual and Augmented Reality* class using the Unity engine and the SteamVR plugin.

LANGUAGES

Portuguese ●●●●●

English ●●●●●

Spanish ●●●○○

PERSONAL

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Primal Light

Primal Light is an open-world story-driven adventure video game. In Primal Light, light is literally a part of living beings. In it, you play as a character whose friend's light faded away. You decide to go on a mysterious and dangerous adventure based on an old legend in order to pursue any chance to save your friend.
The game was developed for *Computer Games Development* class using the Unity engine.

Latrunculi XXI

Latrunculi XXI is a modern reimagination of Ludus latrunculorum, an ancient Roman board game.
The game was developed for *Graphical Applications Laboratory* class.
It features a Javascript WebGL front-end that handles input, animations and rendering and a Prolog back-end that applies the game's logic to each play and generates AI plays.

Stick Hero

Stick Hero is a game where you stretch the stick in order to reach the platforms.
This game was developed for the *Computer Laboratory* class.
It was built as a low-level C application, designed to run on Minix 3 operating system. It uses operating system, kernel and driver level functions to handle keyboard/mouse input, timer/RTC changes and video card output. This device functionalities were done using interrupts (event-driven programming) and polling.

Feup Evac

FeupEvac is a 2D platformer game where you play as a student studying at FEUP's library. He's startled by an explosion and suddenly has to face enemies, falling objects and holes on the floor. His goal is to exit the library towards safety. Once he does, he realizes he has fallen asleep while studying at the library.
The game was developed for *Computer Games Development* class using the Unity engine.