



João de Jesus Costa

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Gender: Male **Date of birth:** 14/09/2000 **Nationality:** Portuguese

ABOUT ME

I am currently enrolled in a Master's degree in [Informatics and Computing Engineering](#) at FEUP. My interests mainly reside in developing software, system administration, writing, and electronics. Furthermore, I've conducted workshops in different topics (relating to informatics) while being part of the IEEE's University of Porto student branch.

WORK EXPERIENCE

[07/2020 – 10/2020] **Computer games developer**

LusolInfo

City: Maia

Country: Portugal

Main activities and responsibilities:

I was part of a team responsible to recreate educational games, previously developed in flash, in the [Unity](#) game engine. These games were then hosted in the companies website to be played by children aged 6 to 14 at school.

I had to code in C# and work with Unity game engine to recreate the game's mechanics visually and optimize the build to be run on lower-end computers' browsers.

Furthermore, I also had the opportunity to work with sound to develop a lip-syncing package for the in-game speaking characters.

[06/2021 – 09/2021] **Computer games developer**

LusolInfo

City: Maia

Country: Portugal

Main activities and responsibilities:

This was the second time I worked for this company. I had the same responsibilities as I had the year before and worked again with a team towards the same objectives.

EDUCATION AND TRAINING

[09/2018 – 06/2021] **Bachelor degree in Informatics and Computing Engineering**

Faculty of Engineering of the University of Porto (FEUP) <https://fe.up.pt>

Address: Rua Dr. Roberto Frias, 4200-465, Porto, Portugal

Final grade: 18/20

[09/2021 – Current] **Master degree in Informatics and Computing Engineering**

Faculty of Engineering of the University of Porto (FEUP) <https://fe.up.pt>

Address: Rua Dr. Roberto Frias, 4200-465, Porto, Portugal

LANGUAGE SKILLS

Mother tongue(s): Portuguese

Other language(s):

English

LISTENING C2 READING C2 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

PROJECTS

[09/2020 – 02/2021] **Emulsion**

In this project, we developed a version of the [Emulsion board game](#). The front-end was developed in plain JavaScript, using WebGL and Shaders. The back-end was developed in [SICStus Prolog](#). The two ends communicate using a server written in Prolog.

I was responsible for the back-end, the communication server, and part of the front-end (including shaders and gameplay).

<https://github.com/JoaoCostaIFG/LAIG/tree/master/TP3>

[10/2020 – 07/2021] **MAWW**

This program allows users using X11 on Linux to have animated backgrounds, regardless of their compositor. This project is available as an [Arch Linux package on the AUR](#).

<https://github.com/JoaoCostaIFG/MAWW>

[06/2021 – 06/2021] **allRGB**

Convert an input PNG image file to an output PNG image file where every pixel is a different color from all the others. It works with images of any aspect ratio, but care needs to be taken to not use images with more than 16777216 pixels (number of RGB colors).

The main interest of this program is to input images with 16777216 pixels (e.g.: 4096x4096px) so we get an output with the different RGB colors. The idea came from [allRGB.com](#).

<https://github.com/JoaoCostaIFG/allRGB>

[02/2021 – 06/2021] **Dry Beans Classification**

In this project, we developed a model (unsupervised learning) to classify beans between seven classes with similar features. This served as an opportunity to gain experience in data science and machine learning libraries for python.

I was responsible for part of the data analysis and treatment, the application of unsupervised learning algorithms, and the comparison of the results.

<https://github.com/JoaoCostaIFG/IART/tree/master/Proj2>

[02/2021 – 06/2021] **Jmm compiler**

A compiler written in Java and JavaCC. It compiles Java-- (Jmm for short), a subset of the Java programming language, to Bytecode (by first compiling to Jasmin). The compiler does syntactic and semantic analysis, and optimizes the generated code.

I was responsible for writing part of the parser and semantic analysis stage, developing part of the LLIR stage, developing the Jasmin code generation, and implementing the tests.

<https://github.com/JoaoCostaIFG/COMP/tree/master/Proj>

[02/2021 – 06/2021] **Segmentation Fault**

An online QA web application resembling [StackOverflow](#). This project was developed for the learning experience of using Bootstrap, Docker, Laravel, and PostgreSQL.

I worked in a team and was responsible for the Docker image, part of the SQL (mainly indexes and database design), most of the front-end, and accessibility/design choices.

<https://github.com/JoaoCostaIFG/LBAW/wiki>