João Pereira

Engineer · Developer · Researcher

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Summary

I have recently graduated in Master of Informatics and Computing Engineering which future is yet not defined. I am passionate about Artificial Intelligence, more precisely Machine Learning. Besides this field of interest, I also am very enthusiast about Web and Mobile development and Computer Graphics. As hobbies, I usually go out with my friends to take some coffee, go to the cinema and also to watch football games since this is my favourite sport.

Education

Faculdade de Engenharia da Universidade do Porto (FEUP)   *Porto, Portugal*

MSc. in Informatics and Computing Enginerring   *Sep. 2012 - Jul. 2017*

- GPA: 16 out of 20

Escola Secundária de Barcelinhos   *Barcelos, Portugal*

Sciences and Technologies   *Sep. 2008 - Jul. 2011*

- GPA: 17 out of 20

Experience

Faculdade de Engenharia da Universidade do Porto   *Porto, Portugal*

Teacher Assistant   *Sep. 2016 - Feb. 2017*

- Teacher Assistant of Graphical Applications Laboratory, a 3rd year course of the programme Master's in Informatics and Computing Engineering.
- In this semester the programme focused on Phong illumination models, polygonal surface rendering, texture mapping, functionality and usability of event handling and user interaction and inter-process communications and mechanisms synchronisation.
- The programming languages explored were JavaScript, C/C++ and WebGL.

Porto, Portugal

Teacher Assistant   *Feb. 2016 - Jul. 2016*

- Teacher Assistant of Computer Graphics, a 2nd year course of the programme Master's in Informatics and Computing Engineering.
- In this semester the programme focused on 3D image synthesis (local and global lighting and visibility calculation), modelling (3D meshes, curves, surfaces and solids), geometric transformations (2D/3D), interaction and concepts for the development of graphical interfaces.
- The programming languages explored were JavaScript, C/C++ and WebGL.

Extracurricular Activity

Academic

JuniFEUP (Junior-company of FEUP)   *Porto, Portugal*

Trainee   *Mar 2015 - Jul 2016*

- Gained expertise in the web development field.

Skills

Programming	Python • C/C++ • Java • C# • PHP
Web Technologies	HTML5 • CSS • JavaScript • jQuery • Laravel • .NET • Flask • Bootstrap
Databases	MySQL • PostgreSQL • SQLite • MongoDB
Others	Xamarim • Git • Android • Data Science (scikit-learn, pandas) • LaTeX
Languages	Portuguese (Mother-tongue) • English

Publications

CONFERENCE ARTICLES (PEER-REVIEWED)

2017 ***Transportation in Social Media: An Automatic Classifier for Travel-Related Tweets***,   *Porto, Portugal*
João Pereira, Arian Pasquali, Pedro Saleiro and Rosaldo Rossetti
18th Portuguese Conference on Artificial Intelligence (EPIA)
DOI: 10.1007/978-3-319-65340-2_30

2017 ***Characterizing Geo-located Tweets in Brazilian Megacities***, João Pereira, Arian   *Wixu, China*
Pasquali, Pedro Saleiro, Rosaldo Rossetti and Nélio Cacho
The 3rd IEEE Annual International Smart Cities Conference (ISC2 2017) {In Press.}

DISSERTATIONS

2017 ***Social Media Text Processing and Semantic Analysis for Smart Cities***, Supervised by   *Porto, Portugal*
Rosaldo Rossetti and Pedro Saleiro | Grade of 19 out of 20.
Master's Dissertation, Faculty of Engineering, University of Porto { arxiv: 1709.03406v1 }

Projects

Cafeteria Franchising Terminal   *Mobile Computing Course*

ANDROID - JAVA · EXPRESS - NODE.JS · POSTGRESQL   *Sep. 2016 - Feb. 2017*

- This project consists in the development of two independent applications for Android devices.
- The client-side applications allows clients to buy anything they want and after that a QR code is generated to be presented in the Cafeteria terminal application which is responsible to make all the payment process through the client credit-card number.
- An API was implemented to make easier the control of all transactions and operations. Both client-side and terminal application can communicate with it. When the server is offline, the application are implemented to communicate with it when the connection establishes again.

Currency Converter   *Mobile Computing Course*

C# - XAMARIM · SQLITE   *Sep. 2016 - Feb. 2017*

- This project consists in the development native application for Android and Windows devices using the cross-platform Xamarim.
- The goal of the application is to support users regarding the conversion of different currencies (e.g. euros to dollars).
- The application updates, when possible, the current value of every currency when it starts through the Yahoo Finance API.

JjQuery   *Compilers Course*

JQUERY · JAVA · ANTLR   *Feb. 2015 - Jul. 2015*

- A tool implemented to translate valid jQuery selectors into executable Java code.
- ANTLR was used to help in the development of lexical, syntactic and semantic representation functions to translate the code.

Mastermind   *Formal Methods in Soft. Eng. Course*

VDM++ · JAVA   *Sep. 2015 - Feb. 2016*

- Mastermind, a board game, was implemented using Vienna Development Method (VDM++) to validate all the operations and objects that will constitute the source-code in a Java version.

Dashboard360   *Information Systems Course*

C# - .NET · HTML5 · CSS3 · MICROSOFT SQL SERVER   *Sep. 2015 - Feb. 2016*

- Dashboard360 is a tool that allows companies to see the overall statistics of its businesses. This tool needs to be connected to an ERP Primavera to get all the necessary information to build the visual representations.

PollHub   *Web Lang. and Technologies Course*

PHP · HTML5 · CSS3 · SQLITE   *Sep. 2015 - Feb. 2016*

- PollHub is a website where people can create polls quickly and invite others to participate.

AskFEUP   *Database & Web Apps. Lab. Course*

PHP - SMARTY · HTML5 · CSS3 · POSTGRESQL   *Feb. 2015 - Jul. 2015*

- AskFEUP is a Q&A platform built using the template engine Smarty. Users can create, answer, comment and classify questions as well as its respective answers.

Eximo   *Graphical Applications Lab. Course*

C++ · PROLOG · OPENGL   *Sep. 2014 - Feb. 2015*

- Eximo is a board game with a 3D visualiser client developed in C++/OpenGL and the whole game logic is in charge of a Prolog server.

Honors & Awards

DOMESTIC

2016 **4th Place**, Hack a City, *hackacity.eu/porto*   *Porto, Portugal*