# João Azevedo

Software Engineer

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# Experience

2012- **Software Engineer**, *ShiftForward*, Porto, Portugal.

#### 2011–2012 **Researcher**, Fraunhofer AICOS, Porto, Portugal.

Designed and developed the new version of Mover, an application to promote mobility among elder people. Implemented the mobile frontend in Android and the backend in Ruby on Rails. Developed several signal analysis tools in Java for Dance! Don't Fall, a dancing game for elders that was ranked in the top 25 apps in the Mobile Apps Showdown of CES 2012. Researched various state-of-the-art technologies, protocols, norms and standards to be used within the AAL4ALL project, a project aiming to develop an ecossystem of products and services for Ambient Assisted Living associated to a business model and validated through a large scale trial. Researched machine learning techniques for time series analysis, focused on the problem of fall detection and activity classification.

#### 2010–2011 **Software Engineer**, *SISCOG*, Lisbon, Portugal.

Implemented several new features and performed corrective maintenance in a crew-scheduling application for VR, a Finnish railway company. Wrote several specifications for new features to be implemented. Performed various code reviews. Developed solutions to enable the integration of git as a version control system in the company's workflow and to automate some of the company's internal processes. Worked mainly with Common Lisp and the Common Lisp Object System.

# 2009–2010 **Student Researcher**, Faculdade de Engenharia da Universidade do Porto, Porto, Portugal.

Designed a module based architecture for a configurable Inductive Logic Programming system development environment. Developed a small working prototype using Java and Prolog. Wrote a module for the YAP high-performance Prolog compiler to enable the access to R-project facilities from within the Prolog engine.

#### 2007–2010 **Software Developer**, *IMAGE*, Porto, Portugal.

Made part of the development team of the browser-based game IMAGE - Industrial Management Game, started on the PESC (Projectar, Empreender e Saber Concretizar) projects initiative at Faculdade de Engenharia da Universidade do Porto. Worked mainly on the Ruby on Rails backend that supported the game, both by introducing new features and refactoring a legacy codebase. Made part of the selection process for new students to integrate the project.

## 2010 Undergraduate Teaching Assistant, Faculdade de Engenharia da Universidade do Porto, Porto, Portugal.

Supported first-year students in a Programming course. Provided assistance on the doubts the students had regarding the coursework on practical classes. Taught basic object-oriented programming with C++. Wrote the assignments for the semester.

Junior Engineer, Critical Software, S.A., Coimbra, Portugal. 2009

> Developed a solution to support software reuse in the company's projects, unified with the current infrastructure regarding the version control systems and the intranet's information system. Worked mainly with Java, using the Stripes framework, and MSSQL.

2009 Undergraduate Teaching Assistant, Faculdade de Engenharia da Universidade do Porto, Porto, Portugal.

Supported first-year students in a Programming course. Provided assistance on the doubts the students had regarding the coursework on practical classes. Taught basic object-oriented programming with C++. Wrote the assignments for the semester.

Undergraduate Teaching Assistant, Faculdade de Engenharia da Universidade do 2008 Porto, Porto, Portugal.

Supported second-year students in a Computer Graphics course. Provided assistance on the doubts the students had regarding the coursework on practical classes. The main technologies involved were OpenGL with C++ and Java Swing.

# Education

2005-2010 Integrated Masters in Informatics and Computing Engineering, Faculdade de

Engenharia da Universidade do Porto, Porto, Portugal.

Grade average of 18 out of 20

2002-2005 Secondary Education - Natural-Scientific Option, Escola Secundária de Carval-

hos, Vila Nova de Gaia, Portugal.

Grade average of 18 out of 20.

# Languages

Portuguese **Fluent** 

> **Professionally** English

> > fluent

# Computer skills

Programming

C, C++, Java, Common Lisp, Prolog, Scheme, PHP, Ruby, JavaScript

Languages Markup

XML, XHTML, LaTeX, CSS

Languages Database

MySQL, PostgreSQL, Microsoft SQL Server

Management

Systems

Revision Control CVS, Subversion, Git

Systems

Android, OpenGL, Hibernate, Java Swing, Stripes, Ruby on Rails, Common Lisp Frameworks and

**Technologies** Object System

#### **Publications**

2009

Robotics

A Cooperative CiberMouse@RTSS08 Team, Azevedo, João, Oliveira, Miguel, Pacheco, Pedro and Reis, Luís Paulo, Proceedings of the 14th Portuguese Conference on Artificial Intelligence: Progress in Artificial Intelligence (EPIA), Aveiro, Portugal, 2009.

### Academic Honors

- O "Prémio Incentivo" in 2005/2006, awarded by University of Porto to the best students finishing the first year of its courses.
- O Merit scholarships in 2006/2007, 2007/2008 and 2008/2009, awarded by "Faculdade de Engenharia da Universidade do Porto" to the top students of all courses.
- O "Prémio Companhia Portuguesa de Computadores, Informática e Sistemas" in 2009/2010, awarded by "CPCIS SGPS Companhia Portuguesa de Computadores, Informática e Sistemas" to the student with the best grade average of the Integrated Masters in Informatics and Computing Engineering at Faculdade de Engenharia da Universidade do Porto.
- O 4th, 3rd and 2nd places, in 2007, 2008 and 2009, at TIUP ("Torneio Inter-Universitário de Programação"), as a member of the Divide\_N\_Conquer (2007 and 2008) and Theorem (2009) teams.
- O 3rd, 4th and 2nd places, in 2007, 2008 and 2009, at MIUP ("Maratona Inter-Universitária de Programação"), as a member of the Divide\_N\_Conquer (2007 and 2008) and Theorem (2009) teams.
- O Two 2nd places, in 2007 and 2008, at CPUP ("Concurso de Programac ao da Universidade do Porto"), as a member of the Divide\_N\_Conquer team.
- O 11th, 24th and 19th places, in 2007, 2008 and 2009, at SWERC (South Western Regional ACM Programming Contest), as a member of the Divide\_N\_Conquer (2007 and 2008) and Theorem (2009) teams.
- O 4th place, in 2008, at the CiberRato contest.
- O 5th place in Portuguese's Microsoft Imagine Cup 2010 Software Design Contest.

#### Interests

Photography Amateur photographer

Science-Fiction Reader of science-fiction novels.

Music Fond of alternative and indie music.