

HUGO PEIXOTO

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I work in several programming-related projects, both as a professional and as a hobbyist. Both my interests and experience revolve around topics on **algorithms** (such as general combinatorics, graph theory and geometric computation), **artificial intelligence** and **web development**.

EDUCATION

Since 2004 **Master in Informatics and Computing Engineering**
Faculty of Engineering of the University of Porto (FEUP)

Expected conclusion in 2010, with a current grade of 16.48 out of 20.

WORK EXPERIENCE

February 2009 to **Computer Graphics undergraduate teaching assistant**
June 2009 Faculty of Engineering of the University of Porto (FEUP)

I helped students with their C++, Java and OpenGL problems, with special focus on lighting, texture mapping, shading and transformations.

Summer 2007 **Statistics gathering system developer**
National Healthcare Regulation Entity (ERS)

I wrote SQL queries for a module that generates reports on complaints for all portuguese healthcare entities. This web application was written in ASP.NET and MSSQL.

2006 to 2009 **Web developer**
Faculty of Architecture of the University of Porto

In a team of three, I planned and developed a social web platform for the publication of architectural projects. We used Flash, XML, XHTML, CSS, PHP, MySQL and Python.

Summer 2006 **Algorithms and Data Structures private tutor**
Freelancer

I helped two graduation finalists with their studies for the final exam on the algorithms and data structures course. They both succeeded, with grades of 13 and 19 out of 20.

EXTRA CURRICULAR EXPERIENCE

April to October
2009

OpenID Provider developer

FEUP's Students Union: Informatics Division (NIFEUP)

I implemented part of an OpenID Provider for FEUP's community. I connected it to our authentication server, providing thousands of accounts without need for registration.

Since 2009

President

FEUP's Students Union: Informatics Division (NIFEUP)

I monitor and coordinate the group's projects and activities. I interact with several faculty departments, looking for opportunities to start new projects.

2007 to 2009

Haptic device programmer

Measurement for Instrumentation Laboratory, at FEUP (LIM)

I developed a game in which the user controls a physical pointer and tries to pop virtual balloons with it. The game was developed in C++, using OpenGL and the device's library.

2006 to 2009

Founding member

FEUP's Students Union: Informatics Division (NIFEUP)

I developed several web applications to help gather funding for this group. On the World Usability Day of 2008, I helped with the organisation of a set of talks on the subject.

PUBLICATIONS

NeatSqueak on wheels: Neural networks applied to movement optimization of a simulated robot

Hugo Peixoto, João Portela, Rui Teixeira, Filipe Castro, Luís Paulo Reis.

Progress in Artificial Intelligence: 14th Portuguese Conference on Artificial Intelligence, Epia 2009, Aveiro, Portugal, October 12-15, 2009, Proceeding

Human-Machine Real-Virtual Haptic Interaction Systems

António M. Lopes, Júlio Santos, **Hugo Peixoto**, A. Augusto de Sousa, M. Teresa Restivo.

Proceedings of the Virtual University 9th International Conference, 2008.

ADDITIONAL INFORMATION

Languages Portuguese (native) and English (fluent)

Programming contests I have been participating, in a team of three, in several programming contests held by the Association of Computer Machinery (ACM), since 2005. In 2008, our team obtained the following results:

CPUP (University of Porto Programming Contest)	3rd place
TIUP (Portuguese Inter-University Tournament)	1st place
MIUP (Portuguese Inter-University Marathon)	3rd place
SWERC (South-Western European Regional Contest)	19th place

I also participated in Google Code Jam 2008 and 2009, a worldwide programming contest, with more than 8000 participants. In 2009, I got to the third round, ranking among the **best 500 contestants**.

In 2007, I participated in a national functional and logic programming contest (CeNPL'07). Among 14 teams, mine ranked fourth place.

Open source contributions I have contributed to multiple open source projects, such as **Ruby on Rails**, by submitting code patches. I also helped by translating some software packages to Portuguese, for the **Debian Project**.