European curriculum vitae format

Personal information

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Website	http://www.paulorodrigues.org
Nationality	Portuguese
Date of birth	09/04/1981

EDUCATION

2006 - 2010

PhD at the Faculty of Biomedical Engineering of the Eindhoven University of Technology (TU/e) in the Biomedical Image-Analysis (BMIA) group

• Brief synopsis of Research

Graduated 19th of April 2011, on the topic "Homogeneity based segmentation and enhancement of Diffusion Tensor Images - A white matter processing framework".
My work focused on developing advanced tools for the virtual dissection of white matter. For this, I've explored/exploited computer vision related techniques in order to improve the analysis and visualisation of brain's complex structure. These new algorithms are brought together in an in-house framework developed mainly with C++, QT and VTK.

Main Areas:

- Image analysis
- Computer graphics
- Visualization
- Medical applications

Technical Skills: C++, python, QT, VTK, Mathematica, multi-platform development (Windows, Linux, Mac OS X)

During my PhD I have also supervised student projects, taken several courses. For details see end sections of this CV.

1999 - 2004

Licentiate (MsC) in Computer Science and Systems Engineering, at University of Minho, Portugal

• Level in national classification

16 out of 20

• Principal subjects/occupational skills covered

Computer Science and Systems Engineering (*http://www.di.uminho.pt/lesi*) - Information Technologies Specialization;

Main Areas:

- Computer Science and Information Technologies;
- Production.

Professional Areas:

- Software engineering, operating systems, networks, information systems, multimedia;
- Imperative, functional and logic paradigms;
- Network and communications, artificial intelligence, cryptography, databases, system administration.

Technical Skills:

- Solid skills in several paradigms: C++, C, Java, Java + JCA & JCE, Perl, PHP, Prolog, Haskell, Visual Basic, C#, XML, HTML, SQL;
- Knowledge in several OS: Unix/Linux, Windows;
- Competent with development platforms like Microsoft.NET, Netbeans.

• Dates

From 1996 to 1999

• Name and type of organization providing education and training

Escola Secundária de Monserrate
Monserrate
Viana do Castelo, Portugal

• Principal subjects/occupational skills covered

Secondary School – General Course

• Title of qualification awarded

Secondary School

• Level in national classification

18 out of 20

EMPLOYMENT

April 2010 - December 2010

Quintiq *– Den Bosch, The Netherlands, website: http://www.quintiq.com*

• Type of business or sector

Advanced planning and scheduling software

• Occupation or position held

Software Developer in the Client team, at the R&D department

March 2006 - March 2010

Technical University of Eindhoven, Biomedical Engineering department, Biomedical Image Analysis Lab, Eindhoven, The Netherlands

• Occupation or position held

PhD candidate

March 2004 – February 2006

***MobiComp* – Braga, Portugal**, website: *http://www.mobicomp.com*

• Type of business or sector

Mobile computing, wireless solutions

• Occupation or position held

Software Engineer

• Main activities and responsibilities

Development of mobile applications for fat-clients, PDAs, smartphones.

Principal skills covered:

- C++, C#, Mobile applications, UI design, Usability, embedded applications for Windows CE, Pocket PC, Symbian OS

Projects of note:

- Designed, developed and deployed an application for PDAs (with barcode reader) used by the employees of the biggest food retail chain in Portugal (Continente) for their home picking groceries service - used in about ten hypermarkets spread through Portugal.

- Developed Windows Mobile smartphone version of MobileKeeper - a backup/restore system for mobile phones data.

Personal skills and competences

Acquired in the course of life and career, not necessarily covered by formal certificates and diplomas

Time Management

During my PhD (but also during my Software engineering job) I had to meet several deadlines for projects and publications. I have experience in juggling different tasks and bringing these to a successful conclusion.

Mother tongue

Portuguese

Other languages

	English	French	Spanish
• Reading skills	Excellent	Basic	Basic
• Writing skills	Excellent	Basic	Basic
• Verbal skills	Excellent	Basic	Basic

Educational Activities

- Supervision of an internship project "Evaluating Distance Learning Scheme for the segmentation of Diffusion Tensor Imaging", April-July 2009, TU/e;
- Supervision of an internship project "DWI-MRI Validation", January-March 2009, TU/e;
- Supervision of a MsC project "DTI study of neonates at risk for neurodevelopmental disorders", July-December 2008, TU/e;
- Tutor in "OGO project: Validation of Diffusion Tensor Imaging Segmentation method", March 2008, TU/e;
- Tutor in "Casus: Image Analysis for Pathology", October 2007, TU/e.

Awards and scholarship Fund

- 2006-2010 – Doctoral grant from Fundação para a Ciência e a Tecnologia (FCT);
- 1999-2004 - Calouste Gulbenkian Foundation Fund;
- 2002/2003 - University of Minho Scholar Merit Award, for having a grade higher than 14;
- 2001/2002 - University of Minho Scholar Merit Award, for having a grade higher than 14;
- 2000/2001 - University of Minho Scholar Merit Award, for having a grade higher than 14;
- 1999/2000 - University of Minho Scholar Merit Award, for having a grade higher than 14;
- 1999 – Merit Scholarship Fund from DREN ("*Direcção Regional de Educação do Norte*"), for having a grade higher than 18.

Activities

Conferences, Workshops, Symposiums, Courses, etc.

- *Conference VCBM*, July 2010, Leipzig, Germany;
- *Joint Annual Meeting ISMRM-ESMRMB 2010*, May 2010, Stockholm, Sweden;
- *2nd Annual Meeting of the Benelux ISMRM chapter*, January 2010, Utrecht, The Netherlands;
- Course *Writing Articles and Abstracts*, June-October 2009, TU/e;
- *EuroVis Conference 2009*, June 2009, Berlin, Germany;
- *ASCI Conference 2009*, June 2009, Zeewolde, The Netherlands;
- *ISMRM 17th Annual Meeting and Exhibition*, April 2009, Honolulu, Hawaii, USA;
- Course *Fundamentals of Biostatistics*, March-April 2009, TU/e;
- *2nd Dutch BME* conference, January 2009, Egmond aan Zee, The Netherlands;
- *Conference MICCAI'08*, September 2008, New York, USA;
- *Conference International Mathematica Symposium IMS*'08, June 2008, Maastricht, The Netherlands;
- *ASCI Conference 2008*, June 2008, Heijen, The Netherlands;
- Co-organizer of the conference *EuroVis´08*, Eindhoven, The Netherlands;
- *3rd Medical Imaging Symposium*, January 2008, Leiden, The Netherlands;
- Course *ASCI A8: Front-end Vision and Multi Scale Image Analysis*, November 2007, TU/e;
- *SNDS bi-national workshop: MRI of brain connectivity and microstructure: Measurement and Validation*, November 2007, Ein-Boqeq, The Dead Sea, Israel;
- Course *CTT Tutor Training*, October-November 2007, TU/e;
- *2nd International Summer School in Biomedical Engineering: Diffusion-weighted Magnetic Resonance Imaging: Principles and Applications*, August 2007, Schoenburg, Germany;
- *VIEW Workshop: Visual Interactive Effective Worlds*, August 2007, Lorentz Center, Leiden, Netherlands;
- *European Congress of Radiology (ECR),* March 2008, Vienna, Austria*;*
- Conference *IEEE Vis'06* conference, November 2006, Baltimore, USA;
- Course *CTT Giving Presentations in English*, 2006, TU/e;
- Course *ASCI AMS: Advanced Morphological Segmentation*, October 2006, Ecole des Mines de Paris, Fontainebleau, France;
- Course *ASCI a17: Data Visualization and Virtual Reality*, September 2006, TUDelft;
- Course *ESMRMB[1] – Lectures on MR course on Perfusion and Flow*, September 2006, Hvidovre Hospital, Copenhagen, Denmark;
- Course *ASCI a1: Advanced Pattern Recognition*, May-June 2006, TUDelft;
- Course *ASCI a6: Measuring Features*, May 2006, TUDelft and UvA;

- *"Working with Stress"*, 2004, MobiComp;
- "*Developing XML Web Services Using Microsoft ASP.Net"*, 2004, MobiComp;
- "*Developing MS ASP.NET Web Applications using Visual Studio.NET*", 2004, MobiComp;
- *"Time Management and Personal Organization*", 2004, MobiComp;
- Workshop "*Project Management*", 2004, University of Minho;
- JOIN'03 – "*Jornadas de Informática 2003*", University of Minho;
- Workshop "*C3PA – Corpora Paralelos – applications and algorithms associated*", 2003, University of Minho;
- Inter-University Programming Marathon (MIUP) 2003, University of Minho;
- "*Jornadas da LESI 2002*", University of Minho;
- SWERC 2002 (Southwestern Europe ACM Programming Contest) – University of Porto;
- MIUP 2003 – FCUL, Lisbon.

Organizational skills and competences

Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.

- Organized a zouk event, inviting teachers, dancers, participants and advertisement;
- Member of ASCI, Advanced School for Computing & Imaging;
- Member of the GIL group (Linux Investigation Group), in University of Minho. This group develops several activities and projects related to Linux and Opensource;
- Member of the board "Centro de Estudantes de Engenharia de Sistemas e Informática";
- Collaborator in the organization of the "Jornadas LESI 2002".

Personal Interests

Love partner acrobatics, to dance Zouk, (learning) play guitar, and all arts, especially cinema, literature and music.

After my PhD work, I took an interlude in my career, by traveling through Brasil during the first three months of 2011.

Driving licence(s)

Driving license for cars - category B

Publications

- P.R. Rodrigues, *Homogeneity based segmentation and enhancement of Diffusion Tensor Images - A white matter processing framework,* 2011, Eindhoven University of Technology, Advisors: A.Vilanova, B.M. ter Haar Romeny *(PhD thesis)*
- V. Prckovska, P.R. Rodrigues, R. Duits, B.M. ter Haar Romeny, A. Vilanova, *Extrapolating fiber crossings from DTI data. Can we infrer similar fiber crossings as in HARDI?*, in Workshop Computational Diffusion MRI, MICCAI; Beijing, China, 2010 *(refereed proceedings)*
- P.R. Rodrigues, R. Duits, B.M. ter Haar Romeny, A. Vilanova: *Accelerated diffusion operators for enhancing DW-MRI*, in VCBM; Leipzig, Germany, July 2010 *(refereed proceedings)*
- P.R. Rodrigues, V. Prckovska, W.L.P.M. Pullens, B.M. ter Haar Romeny, A. Vilanova, G.J. Strijkers, *Validating Validators: An Analysis of DWMRI Hardware and Software Phantoms*, in ISMRM; Stockholm, Sweden, May 2010 *(conference poster)*
- P.R. Rodrigues, A.Jalba, P. Fillard, B.M. ter Haar Romenij, A. Vilanova, *A Multi-Resolution watershed-based approach for the segmentation of Diffusion Tensor Images*, in ISMRM; Stockholm, Sweden, May 2010 *(conference poster)*
- P.R. Rodrigues, A. Jalba, P. Fillard, B.M. ter Haar Romenij, A. Vilanova, *A Multi-Resolution watershed-based approach for the segmentation of Diffusion Tensor Images*, in ISMRM Benelux Chapter; Utrecht, The Netherlands, January 2010 *(conference poster)*
- P.R. Rodrigues, A. Jalba, P. Fillard, A. Vilanova, B.M. ter Haar Romenij, *A Multi-Resolution watershed-based approach for the segmentation of Diffusion Tensor Images*, in MICCAI Workshop on Diffusion Modelling; London, United Kingdom, September 2009 *(refereed proceedings)*
- P.R. Rodrigues, A. Vilanova, T. Twellmann, B.M. ter Haar Romeny, *Adaptive Distance Learning Scheme for Diffusion Tensor Imaging using Kernel Target Alignment*, in ASCI, Zeewolde, The Netherlands, June 2009. *(conference poster)*
- P.R. Rodrigues, V. Prckovska, T.H.J.M. Peeters, A. Vilanova Bartroli, B.M. ter Haar Romeny, *DTITool: An Insightful look into Diffusion Tensor Images*, EuroVis 2009, Berlin, Germany, June 2009. *(conference poster)*
- P.R. Rodrigues, A. Vilanova, T. Twellmann, B.M. ter Haar Romeny, *Improving Diffusion Tensor Imaging Segmentation Through an Adaptive Distance Learning Scheme*, in ISMRM 09, Honolulu, Hawaii, United States, 2009. *(conference poster)*
- P.R. Rodrigues, A. Vilanova, T. Twellmann, B.M. ter Haar Romeny, *Adaptive Distance Learning Scheme for Diffusion Tensor Imaging using Kernel Target Alignment*, in MICCAI Workshop on Computational Diffusion MRI (CDMRI); New York, United States, 148-158, 2008. *(refereed proceedings)*
- T.H.J.M. Peeters, P.R. Rodrigues, A. Vilanova, and B.M. ter Haar Romeny. *Analysis of Distance/similarity measures for diffusion tensor imaging*. In David H. Laidlaw and Joachim Weickert, editors, Visualization and Processing of Tensor Fields: Advances and Perspectives. Springer, Berlin, 2008. *(book chapter)*

Talks

- P.R. Rodrigues, A. Vilanova Bartroli, T. Twellmann, B.M. ter Haar Romeny, *Adaptive Distance Learning Scheme for Diffusion Tensor Imaging using Kernel Target Alignment*, 2nd Dutch Biomedical Engineering (BME), Egmond aan Zee, The Netherlands (2009)
- P.R. Rodrigues, T.H.J.M Peeters, A. Vilanova Bartroli, B.M. ter Haar Romeny, *Analysis of distance/similarity measures for Diffusion Tensor Imaging*, International Mathematica Symposium (IMS), Maastricht, The Netherlands (2008)

1 European Society for Magnetic Resonance in Medicine and Biology (*http://www.esmrmb.org/*)