Vítor Rodrigues
Feldmann Str. 10
64347, Griesheim
Germany

April 14, 2008

MAP-i Scientific Committee
a/c Alexandra Ferreira
Departamento de Ciência de Computadores
Faculdade de Ciências da Universidade do Porto
Rua do Campo Alegre, 1021
4169-007 Porto, Portugal

MAP-i Application Letter — 2008/09 Course Edition

In this application letter I wish to present you the stronger arguments that motivate me to be a candidate for MAP-i doctoral program and to apply for a grant.

For the last ten years I have been trying to affirm myself as a researcher and the MAP-i doctoral program is an excellent opportunity for me to give continuity to that work. I began doing research at the R&D institution INESC Porto where I add the privilege to contribute for several European projects. As a trainee at ESOC (European Space Agency Centre) I was able to make contact with a different reality and to apply my knowledge, not only in favor of the Agency but also for my own good since I materialized my research work in my Master thesis. These positive results gave me the opportunity to be presently working as software engineer at ESOC.

Although my research and development area has always been related with software subjects, I did my high-school graduation in Electrical and Computer Engineering. I learned to see software not as an end in itself but always as something with the function to give support for more theoretical areas such as Electronics, for example. Therefore, I got used to think closer to the functioning of theoretical systems than to the technical aspects of the software tools that model those systems. But this did not preclude my continuous specialization in the manipulation of technologies. What I consider important is to capture the essential characteristics of each technology so that they can be applied with the maximum efficiency and lesser effort.

Despite the fact that I have already three research papers published, two of them as the first author, I am conscious of the need of a PhD to be able to dedicate myself full time to research. On the other hand, if it is true that applied research in the universe of Informatics is fundamentally technologic, I consider to be essential the achievement of a certain level of maturity in dealing with technologies, and not with being limited by them, in the process of creating new ideas. In this sense, I see in the MAP-i doctoral program a great opportunity to enrich my knowledge, mainly in the areas closer to Computer Science, and to put in practice my technical skills.

The Master in Informatics Engineering that I have done in the same university I did the five years degree allowed me to continue to think of learning as a primordial factor for the creation of ideas and their concretization. Under the supervision of Professor João Correia Lopes I was able to learn the paradigm of functional programming languages and was also with his orientation that I developed my Master thesis. At the same time, I worked with Professor João Correia Lopes at INESC Porto. This period of collaboration would end without the publication of a research paper in the conference CAISE'08, together with Professor Ana Moreira from the New University of Lisbon, entitled "An Hybrid Design Solution for Spacecraft Simulators".

My interest in Computer Science has been gradually growing and I face the possibility of doing part of the MAP-i at the Carnegie Mellon University with great expectations. I count with the support of Professor José Nuno Oliveira from the University of Minho and Professor Mário Florido from the Faculty of Sciences of the University of Oporto that already know my work and validated my ideas for my PhD thesis. Both accepted to be my supervisors in this application for the MAP-i doctoral program. In fact, my plans for a PhD are a direct consequence of my Master Thesis and I am working on it on a regular basis. Generically, the subject of research is a *simulator of formal specifications*. It involves topics of logic and functional programming, abstract machines and a wide range of technologies.

The five years of experience I had at INESC Porto and the contacts that I have tried to keep with the Faculty of Engineering of Oporto has yet a strong influence in the way I face interpersonal relations. I had a relevant role in the OR-BIT project created by London BBC and INESC Porto where I began to work with the borderline technology CORBA, and I was a pioneer in the Distributed Computing area of INESC Porto where I gave continuity to my graduation final project. Later, I had the pleasure to work with French Thompson and HP in the ASSET European project which purpose was to find the best way to use the MXF technology in a distributed environment. I had the feeling that my advanced technological knowledge was something that pleased our partners and that allowed me to think of professional relations as something between equals,

even if I was too young at the time. Currently at ESOC, I have the privilege to work closely with VEGA, ESOC's prime contractor. At this level, the activity of software engineering brings great advantages in getting the picture of what the most advanced, technologically and conceptually, is being done at ESA.

Nonetheless, the MAP-i doctoral program is an opportunity that I want to grab with the ambition to explore new subject areas. Technology does not seduce me anymore and studying becomes again something fascinating. To do part of the MAP-i curriculum at Carnegie Mellon is, undoubtedly, my primary objective. In respect to the beginning of my PhD thesis, I could not be more expectant.

Despite the my efforts, I was able to register to the TOEFL English examination only to the 9$^{\text{th}}$ of May, but I believe that the two years of international experience as a foreign citizen in Germany and the daily practice of speaking and writing in English are good indicators of my English expression skills. With your consent, I will update my MAP-i application with the TOEFL results as soon as possible.

Sincerely,

Vítor Gabriel dos Reis Machado
Rodrigues

Europass
Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Rodrigues, Vítor**
Address(es)	10, Feldmann Str., 64347, Griesheim, Germany
Telephone(s)	+4906151902267 Mobile: +351969945311
Email(s)	victor.rodrigues@esa.int
Nationality(-ies)	Portuguese
Date of birth	21st of March, 1978 (Oporto)
Gender	Male

Occupational field

Research and Development

Work experience

Dates	From September 2000 to February 2003
Position held	He began his activity with a scientific research scholarship and from September 2001 he was a professional researcher.
Main activities	He participated in several european projects of the 5th and 6th framework programs such as ORBIT (BBC R&D), ASSET (Compaq-HP, Thomson, among others) and Metavision (BBC, Snell&Wilcox, among others) which had the common objective to develop software prototypes in distributed environments for television production studios.
Employer	INESC Porto — R&D Institution
Department	Telecommunications and Multimedia Unit
Dates	From March to August 2003
Position held	Software Engineer
Main activities	He was responsible for the design and implementation of MFX-enabled software components (Material eXchange Format).
Employer	MOG Solutions — a spin-off from INESC Porto
Dates	From March 2004 to February 2006
Position held	Researcher with a scientific research scholarship
Main activities	He participated in the MEDSI european project (Telefónica I+D, GISAT, T-Soft, among others) that had the main purpose of developing a set of web-based software components for the creation of a platform for crisis management in critical infrastructures with decision-making support.
Employer	INESC Porto — R&D Institution
Department	Information and Communication Systems Unit
Dates	From February 2006 to December 2006
Position held	He made an internship at the European Space Agency Operations Centre (ESOC).
Main activities	He was involved in the study and prototyping of the SMP2 standard for modeling spacecraft simulators, specifically in Linux platforms.
Employer	ICEP Portugal
Department	Application Mission Data System (OPS-GDA)
Dates	Since July 2007
Position held	Software Engineer

Main activities	He performs tasks related with requirements engineering and system design including the validation and verification of the Ground Simulation Infrastructure segment. He is also responsible for the administration of Linux machines.
Employer	Oristeba — Space Services
Department	Ground Infrastructure (OPS-GIC)

Education and training

Dates	From September 2004 to July 2007
Title of qualification awarded	Master in Informatics Engineering with a final grade of "Muito Bom" (Very Good)
Principal subjects	Functional Programming and Parallel Computing
Organization	School of Engineering of the University of Oporto (FEUP)
Level in national or international classification	M.Sc.

Dates	From 6th to 16th September 2004
Title of qualification awarded	Professional formation with grade of "Elevado" (top grade)
Subject	Agile Software Development
Organization	School of Engineering of the University of Oporto (FEUP)

Dates	From 13th November to 18th December 2003
Title of qualification awarded	Professional formation with grade of 97%
Subject	Flash MX
Organization	Tecla Professional School

Dates	From September 1995 to July 2000
Title of qualification awarded	Degree in Electrical and Computer Engineering (Telecommunications, Electronics and Computers specialization) with a final grade of 15/20 (inside the group of the 10% best students)
Organization	School of Engineering of the University of Oporto (FEUP)
Level in national or international classification	5-years Engineer Degree

Personal skills and competences

Mother tongue(s)	**Portuguese**

Self-assessment
European level[(*)]

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	Proficient user	Proficient user	Proficient user	Proficient user	Proficient user
French	Basic user	Basic user	Basic user	Basic user	Basic user

[(*)]*Common European Framework of Reference (CEF) level*

Social skills and competences	During his researcher activity he has developed adaptation capacities to new challenges and communication skills. Mainly, he performed technical support actions to communities of users.

Technical skills and competences

- Operating systems: Linux and Windows.
- Software Development:
  * Object-Oriented Languages: experience in Java, ANSI C++, ActiveX, C# and Python in several development environments (ex: Eclipse, Visual Studio e .NET).
  * Functional languages: Haskell
  * Knowledge of Agile practices for software development: XP (Extreme Programming), TDD (Test-Driven Development) and refactoring techniques using design patterns.
  * GNU/Linux scripting languages: Autoconf and Automake
- Distributed Systems:
  * Java RMI (Java Remote Method Invocation)
  * CORBA (Common Object Request Broker Architecture)
  * EJB (Enterprise JavaBeans)
  * .NET Remoting
  * Web Services and Service Oriented Architectures
  * OpenMP
- Standards:
  * XML (eXtensible Markup Language), XML Schema, XSL Transformations (Extensible Stylesheet Language) and HTML (Hyperext Markup Language) — W3C (Work Wide Web Consortium)
  * UML (Unified Modelling Language), CORBA (Common Object Request Broker Architecture), CORBA Components and MDA (Model-Driven Architecture) — OMG (Object Management Group)
  * MPEG-21 (Multimedia Framework) — MPEG (Moving Picture Experts Group)
  * MXF (Material eXchange Format) — SMPTE (Society of Motion Picture and Television Engineers)
  * UDDI (Universal Description, Discovery, and Integration) — Microsoft, IBM, among others.
  * SMP2 (Simulation Model Portability 2) — European Space Agency
  * MPI (Message Passing Interface) — MPI Forum
- Web Development: PHP and Flash MX (Macromedia)

Personal skills

- GRE Scores:
  * Verbal — 340
  * Quantitative — 360
  * Analytical Writing — 2.5
- TOEFL Results:
  * Test will be done in Darmstadt in the 9th of May, 2008

Artistic skills

His secondary school specialization was on Arts Bureau where he achieved the top grade (20/20).

Other skills

He enjoys the practice of swimming, jogging and squash.

Additional information

Papers and Publications

CAISE'08

Vítor Rodrigues, João Correia Lopes, and Ana Moreira.
An Hybrid Design Solution for Spacecraft Simulators.
Montpellier, 16-20 June 2008

Vítor Rodrigues.
The Role of the Requirements Engineering in Ontology Definitions.
In the context of the course in Software Systems Requirements Engineering, Master in Informatics Engineering, FEUP, obtaining the top grade, December 2005

Vítor Rodrigues.
Ontology-driven Architecture for Geographic Information Systems: Application Integration and Service-oriented Middleware approaches.
In the context of the MEDSI project, INESC Porto. Available online: http://usic. inescporto.pt/papers/uddi2m.pdf, November 2005

CONFTELE 2003

Vítor Rodrigues, José Ruela, et al.
MXF Supporting the Integration of Media Applications and Broadcasting Products.
Aveiro, June 2003

NAB2003

Vítor Rodrigues, Damien Bommart, Serge Daulard, et al.
The ASSET Architecture: Integrating Media Applications and Broadcasting Products in a Unified Model and Framework.
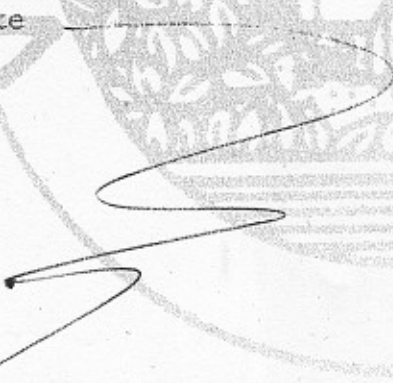Las Vegas, 7-10 April 2003

SILVINO DA CRUZ MARTINS, Chefe de Repartição da Faculdade de

Engenharia da Universidade do Porto:

Certifico, em face de arquivo respectivo, que ----------------------------------

VÍTOR GABRIEL DOS REIS MACHADO RODRIGUES------------------------------------

filho de Joaquim António Machado Rodrigues----------------------------------

e de Maria Lisete dos Reis Mendes Machado Rodrigues------------------------

natural da freguesia de Paranhos--

concelho de Porto---

distrito de Porto---

concluiu nesta Faculdade, no dia vinte e oito do mês de Julho de dois mil,

o curso de Licenciatura em Engenharia Electrotécnica e de Computadores -

Ramo de Sist Telecom Electrónica e Computadores, com a classificação

final de quinze valores --

A carta da referida licenciatura já foi requerida,e ser-lhe-á entregue

oportunamente -------------

A presente vai firmada com o selo branco desta Faculdade

Secretaria da Faculdade de Engenharia, 10 de Novembro de 2000

CHEFE DE REPARTIÇÃO

Emol=2.500$00

Conf

Emit FERNANDA

MATILDE FERNANDA DA ROCHA MOREIRA, Chefe de Divisão da Faculdade de Engenharia da Universidade do Porto:

Certifico, em face de arquivo respectivo, que --------------------------------
VÍTOR GABRIEL DOS REIS MACHADO RODRIGUES--------------------------------
filho de Joaquim António Machado Rodrigues --------------------------------
e de Maria Lisete dos Reis Mendes Machado Rodrigues --------------------------
natural da freguesia de Miragaia--
concelho de Porto---
distrito de Porto---
concluiu o curso de Mestrado em Engenharia Informática, desta Faculdade, no dia quatro do mês de Outubro de dois mil e sete, com a classificação final de MUITO BOM.

A carta do referido mestrado já foi requerida, e ser-lhe-á entregue oportunamente.

A presente vai firmada com o selo branco desta Faculdade.

Secretaria da Faculdade de Engenharia, 04 de Março de 2008

P' A CHEFE DE DIVISÃO

Branca Eugénia Mota Saldanha

Emol. 15,00 €
Conf. BE
Emit. GA_SUSAN

CARTA DE RECOMENDAÇÃO

Exmo. Senhor,

Vitor Gabriel dos Reis Machado Rodrigues, trabalhou sob minha supervisão nos últimos 3 anos, inicialmente no grupo de Sistemas Distribuídos Multimédia da Unidade de Telecomunicações do **INESC Porto** e mais recentemente na **Media, Objects and Gadgets – Soluções de Software e Hardware S.A**.

O seu trabalho, enquadrado em diferentes projectos europeus e contratos de desenvolvimento internacionais, incluía o estudo, definição de arquitecturas e desenvolvimento de software no âmbito dos Sistemas Distribuídos Multimédia. A qualidade do seu trabalho reflecte-se nos elogios recebidos pelos nossos parceiros e clientes nos projectos em que participou.

É não só um trabalhador conscencioso e capaz, como também um excelente colega e um grande desportista. Lamentando a sua saída da nossa empresa, tenho no entanto a certeza absoluta que virá a ser sempre um excelente colaborador no seu percurso profissional futuro. Recomendo vivamente o Vitor Rodrigues para o desempenho de qualquer função relacionada com a sua área de competência.

Com os melhores cumprimentos,

MEDIA, OBJECTS AND GADGETS
Soluções de Software e Hardware, S.A.
Parque de Ciência e Tecnologia da Maia
R!. Eng. Frederico Ulrich, 2650
4470 -605 Moreira da Maia
N.º Cont.: 506 387 666
Pedro Cardoso

Presidente do Conselho de Administração

Contribuinte N.º: 506387666 - Capital Social 50,000.00 € - Cons. Reg. Com. Maia N.º 03/01/17
Parque de Ciência e de Tecnologia da Maia - Rua Eng. Frederico Ulrich, 2650 - 4470-605 Moreira da Maia – Portugal
Tel: +351 22 940 82 24 – Fax: +351 22 940 82 01 – e-mail: info@mog-solutions.com

esa

To: Whom it may concern

cc: Mario Merri

your ref. / *votre rèf.*
our ref. / *notre rèf.*   OPS-GDA/2007/LR/0002/DG

Subject/objet: **Letter of Recommendation for Mr. Vitor Rodrigues**

The aim of this letter is to describe the work performed by Mr. Vitor Rodrigues at the European Space Operations Centre (ESOC) in Darmstadt, Germany from April 2006 to December 2006.

Vitor came as part of Portuguese INOV CONTACTO Program and he was assigned to the ESOC Application Mission Data System (OPS-GDA) Section. In particular, he closely collaborated with the group responsible for the development of Mission Control System and Spacecraft Simulators for the Earth Explorer Missions. The group is leaded by myself and Mr. V. Reggestad.

The background of Vitor was found immediately suitable by Mr. Reggestad for the analysis of SMP-2 (Simulator Model Portability) standard in the simulator software development. The aim was to prove the feasibility of developing in compliance with this standard on a Linux platform. The analysis included the prototype of a SMP-2 compliant model of the Goce spacecraft star tracker.

The above described activity involved Vitor almost full time for the first 4 months of the internship. The job required first of all familiarisation with the infrastructure software, development tools and environment currently used in the Agency. The job has been conducted in a high level of independency and freedom, with a clear understanding of the goal to be achieved. At the same time, he contributed with valuable comments to general review of documents produced by the Agency in the same context.

A second activity was then given to Vitor in the summer 2006. We received the first delivery of the Aeolus spacecraft simulator running on Linux platform. Again the knowledge of Vitor well fitted with our needs of technical support.

The development contract under my responsibility was the first one in the Agency using a new line of infrastructure software for Linux platform. Vitor accomplished tasks of installing, configuring and testing the simulator.

His contribution was outstanding and certainly beyond our expectations. In fact, he provided us with improvements of installation methodologies currently in use at the Agency. He proposed a way to follow in the installations of simulators that is making more effective use of Linux platform existing installation and configuration tools.

This second activity gave him the opportunity to get familiar with the Agency working environment, methodologies, tools, and people. In a short period, he grew up in relating with people and getting confidence on his potentiality. He became soon a reference for the Aeolus simulator user community providing ad hoc support in the area of testing and configuration of the Linux simulator.

During the second period of internship, he was able to complete his prototype model, including a detailed documentation of the process done and the results achieved. The experience gained in the Aeolus simulator support provided him a way to complete this first commitment.

A presentation was given to the ESOC community involved in the SMP-2 standard definition and development. The attendance demonstrated high interest in the material presented and particular interest in the documented recommendation for the future development in SMP-2.

During the internship, Vitor kept records of the work done. Those records left to the Agency a set of good quality documents that can be re-used in different areas of software development in the Agency.

Vitor was always very cooperative and versatile. He was always able to achieve and go beyond the expected goal in all the activity.

All this contributed to fully meet the expectation of the Agency and in particular of OPS-GDA Section.

His qualitative and quantitative level of work shows highly professional background, and even high level of potentiality promising the best for his future career.

Best Regards,

Damiano Guerrucci
Data System Manager
Application Mission Data System Section (OPS-GDA)
ESOC/ESA

FEUP Universidade do Porto
Faculdade de Engenharia

Departamento de Engenharia Informática

DECLARAÇÃO

Para os devidos efeitos, declaro que o mestre **Vítor Gabriel dos Reis Machado Rodrigues**, se encontra em condições excepcionais de poder encetar e vir a concluir com êxito trabalhos de Doutoramento.

Baseio este meu parecer no conhecimento directo das suas capacidades, uma vez que tive a meu cargo a sua orientação nos trabalhos do Mestrado em Engenharia Informática, com o título "On the Specication of Spacecraft Simulators using Object-Oriented Methodologies", que concluiu com êxito em 4 de Outubro de 2007, com a classificação final de Muito Bom. O trabalho de mestrado incluiu o estudo das técnicas de especificação de software MDD (*Model Driven Development*) e TDD (*Test Driven Development*) e a proposta da combinação das duas no projecto de construção de simuladores.

Para além do trabalho de mestrado, acompanhei ainda o trabalho do Vítor Rodrigues no projecto europeu MEDSI (número 506991) do 6º Programa Quadro do IST, que tinha como objectivo o desenvolvimento de um conjunto de componentes Web com suporte de apoio à decisão para a gestão de crises em infra-estruturas críticas.

Nestas duas orientações, o Vítor Rodrigues demonstrou possuir grandes capacidades de estudo e de trabalho autónomo, persistência e elevados conhecimentos técnicos, nomeadamente na área da especificação, produção e manutenção de software usando os paradigmas Orientado por Objectos, a utilização de Padrões de Software e o *refactoring* de software.

Para finalizar devo ainda referir que o Vitor Rodrigues foi meu aluno na disciplina de Paradigmas de Programação tendo obtido a classificação final de 17 em valores.

Faculdade de Engenharia da Universidade do Porto, 9 de Abril de 2008

João Correia Lopes

(Professor Auxiliar)

Curriculum vitae Europass

Informação pessoal

Apelido(s) - Nome(s)	**Rodrigues, Vítor**
Morada(s)	10, Feldmann Str., 64347, Griesheim, Germany
Telefone(s)	+4906151902267 Telemóvel: +351969945311
Correio(s) electrónico(s)	victor.rodrigues@esa.int
Nacionalidade(s)	Portuguesa
Data de nascimento	21 de Março de 1978 (Porto)
Sexo	Masculino
Ramo de actividade	**Investigação e Desenvolvimento**

Experiência profissional

Datas	Setembro de 2000 até Fevereiro de 2003
Posição	Iniciou a sua actividade com uma bolsa de investigação científica e a partir de Setembro de 2001 foi investigador contratado.
Principais actividades	Participou em vários projectos europeus do 5º e 6º programa quadro tais como o ORBIT (BBC R&D), ASSET (Compaq-HP, Thomson, entre outros) e o Metavision (BBC, Snell&Wilcox, entre outros) que tiveram como objectivo comum desenvolver protótipos de software em sistemas de computação distribuídos para estúdios de produção de televisão.
Entidade empregadora	INESC Porto — Instituição I&D
Departamento	Unidade de Telecommunicações e Multimédia
Datas	Março de 2003 até Agosto de 2003
Posição	Engenheiro de Software
Principais actividades	Foi responsável pelo design e implementação de componentes de software de acordo com a especificação MFX (Material eXchange Format).
Entidade empregadora	MOG Solutions — uma *spin-off* do INESC Porto
Datas	Março de 2004 até Fevereiro de 2006
Posição	Investigador com uma bolsa de investigação científica
Principais actividades	Participou no projecto europeu MEDSI (Telefónica I+D, GISAT, T-Soft, entre outros) que teve como principal objectivo o desenvolvimento de componentes web na criação de uma plataforma para gestão de sistemas críticos com apoio à decisão.
Entidade empregadora	INESC Porto — Instituição I&D
Departamento	Unidade de Sistemas de Informação e Comunicação
Datas	Fevereiro de 2006 até Dezembro de 2006
Posição	Realizou um estágio na Centro de Operações da Agência Espacial Europeia
Principais actividades	Esteve envolvido no estudo e prototipagem do standard SMP2 aplicado na modelação de simuladores de naves espaciais, especificamente na plataform Linux.
Entidade empregadora	ICEP Portugal
Departamento	Application Mission Data System (OPS-GDA)
Datas	Desde Julho de 2007
Posição	Engenheiro de Software

Principais actividades	Desempenha funções relacionadas com engenharia de requisitos e desenho de sistema incluindo a validação e verificação do segmento de simulação Ground Infrastructure. É também responsável pela administração de sistemas Linux.
Entidade empregadora	Oristeba — Space Services
Departamento	Ground Infrastructure (OPS-GIC)

Formação académica

Datas	Setembro de 2004 até Julho de 2007
Qualificação	Mestrado em Engenharia Informática com a classificação final de "Muito Bom"
Temas principais	Programação Funcional e Computação Paralela
Instituição	Faculdade de Engenharia da Universidade do Porto (FEUP)
Nível de classificação internacional	M.Sc.

Datas	6 a 16 de Setembro de 2004
Qualificação	Formação profissional com a classificação de "Elevado" (classificação máxima)
Tema	Agile Software Development
Instituição	Faculdade de Engenharia da Universidade do Porto (FEUP)

Datas	13 de Novembro até 18 de Dezembro 2003
Qualificação	Formação profissional com a classificação de 97%
Tema	Flash MX
Instituição	Escola Professional Tecla

Datas	Setembro de 1995 até Julho de 2000
Qualificação	Licenciatura em Engenharia Electrotécnica e de Computadores (especialização em Telecomunicações e Electrónica) com a classificação final de 15/20 valores (entre os 10% melhores alunos)
Instituição	Faculdade de Engenharia da Universidade do Porto (FEUP)
Nível de classificação internacional	5 anos de gradução em Engenharia

Comptências pessoais

Língua(s) materna(s)

Portuguesa

Auto-avaliação
Nível europeu[*]

Inglês

Francês

Compreender		Falar		Escrever
Compreensão oral	Leitura	Interacção oral	Produção oral	
Utilizador experiente	Utilizador experiente	Utilizador experiente	Utilizador experiente	Utilizador experiente
Utilizador básico	Utilizador básico	Utilizador básico	Utilizador básico	Utilizador básico

[*]*Nível do Quadro Europeu Comum de Referência (CECR)*

Comptências sociais

Durante o período como investigador desenvolveu capacidades de comunicação e de adaptação a novos desafios. A sua actividade tem uma forte componente de suporte técnico a comunidades de utilizadores.

Comptências técnicas

– Sistemas operativos: Linux e Windows.

– Desenvolvimento de software:

* Linguagens object-oriented: experiência em Java, ANSI C**, ActiveX, C# e Python em diversos ambientes de desenvolvimento (Eclipse, Visual Studio e .NET).
* Linguages funcionais: Haskell
* Conhecimento de práticas Ágeis de desenvolvimento de software: XP (Extreme Programming), TDD (Test-Driven Development) e *refactoring* através de padrões de desenho.
* Linguagens de *scripting* GNU/Linux: Autoconf e Automake

– Sistemas Distribuídos:

* Java RMI (Java Remote Method Invocation)
* CORBA (Common Object Request Broker Architecture)
* EJB (Enterprise JavaBeans)
* .NET Remoting
* Web Services e Service Oriented Architectures
* OpenMP

– Standards:

* XML (eXtensible Markup Language), XML Schema, XSL Transformations (Extensible Stylesheet Language) e HTML (Hyperext Markup Language) — W3C (Work Wide Web Consortium)
* UML (Unified Modelling Language), CORBA (Common Object Request Broker Architecture), CORBA Components e MDA (Model-Driven Architecture) — OMG (Object Management Group)
* MPEG-21 (Multimedia Framework) — MPEG (Moving Picture Experts Group)
* MXF (Material eXchange Format) — SMPTE (Society of Motion Picture and Television Engineers)
* UDDI (Universal Description, Discovery, and Integration) — Microsoft, IBM, entre outros.
* SMP2 (Simulation Model Portability 2) — European Space Agency
* MPI (Message Passing Interface) — MPI Forum

– Desenvolvimento Web: PHP e Flash MX (Macromedia)

Comptências pessoais

– Pontuação GRE:

* Verbal — 340
* Quantitativa — 360
* Escrita analítica — 2.5

– Resultados TOEFL:

* O exame será feito em Darmstadt em 9 de Maio de 2008

Comptências artísticas

A sua especialização na escola secundária foi em Oficinas de Arte onde obteve a classificação final de 20/20 valores.

Outras comptências

Gosto pela prática de natação, *jogging* e *squash*.

Informação adicional

Artigos e Publicações

CAISE'08

Vítor Rodrigues, João Correia Lopes, and Ana Moreira.
An Hybrid Design Solution for Spacecraft Simulators.
Montpellier, 16-20 June 2008

Vítor Rodrigues.
The Role of the Requirements Engineering in Ontology Definitions.
In the context of the course in Software Systems Requirements Engineering, Master in Informatics Engineering, FEUP, obtaining the top grade, December 2005

Vítor Rodrigues.
Ontology-driven Architecture for Geographic Information Systems: Application Integration and Service-oriented Middleware approaches.
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