Date: Wed, 30 Apr 2008 18:48:42 +0100
From: Ana Nunes <aln@lsd.di.uminho.pt>
To: mapi@map.edu.pt
Subject: Application to the MAP-i doctoral program

Dear Sirs,

Herein, I present my application to the MAP-i Doctoral Program.

As attachments you will find the following items:
- Statement of Purpose;
- Resume;
- Grade transcript for "Licenciatura em Engenharia de Sistemas e Informática";
- Grade transcript for "Licenciatura em Engenharia Informática";
- Grade transcript for "First Certificate in English";
- Grade transcript for "Certificate of Proficiency in English";

If further documentation is needed, please contact me.

Thank you,

Ana Nunes

Statement of Purpose
MAP-i

Ana Nunes

April 30, 2008

Having graduated in System Engineering and Informatics, and currently finishing my Masters in Computer Science at *Universidade do Minho*, I feel that the MAP-i Doctoral Program presents an amazing opportunity to both further my knowledge in several key areas of Computer Science and foster my research skills.

I already have some researching experience, as last year, while collaborating on project "GORDA - Open Replication of Databases" (FP6-IST2-004758), I developed a specific-purpose graphical management console. Also, as stated in my resume, I'm currenty involved in the P-SON project (POS C/EIA/60941/2004), working on a RSS feeds' caching and dissemination architecture, that exploits today's social networks to promote collaboration and provide users with valuable features.

This year's theme, "Security and the Information Society" seems perfectly tailored to my research interests, as "Security" is orthogonal to pretty much all fields of computing, and I find its aspects on Networking, Distributed Systems and Cryptography particularly appealing. As mentioned, I've been doing research on how to leverage the intrinsic value of today's Information Society to make significative contributions in the related field of Distributed Systems. Also, I believe that the courses offered, together with the possibility of meeting and interacting with similar-minded peers, will broaden my horizons and present issues that can later lead to interesting research and valuable contributions.

As project GORDA has already ended and project P-SON is nearing its end, being awarded a PhD research grant is of surmount importance.

I expect the MAP-i Doctoral Program to be both exciting and challenging and the PhD degree awarded to become the cornerstone of my research career.

europass

Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Nunes, Ana Luísa Parreira**
Address(es)	Rua José António Cruz, 169, 3º DTO-Trás 4715-343 Braga, Portugal
Telephone(s)	(+351) 938231780
Email(s)	aln@lsd.di.uminho.pt
Nationality(-ies)	Portuguese
Date of birth	8th October 1983
Gender	Female

Work Experience

Dates	June 2007 - Present
Ocuppation or position held	Software Engineer and Researcher
Main activities and responsabilities	I've collaborated on the European Community-funded GORDA project, whose goal is to foster database replication as a means to address the challenges of current database systems underlying the information society. I worked on providing GORDA with a web-based graphical monitoring and management console that leverages JMX capabilities. I'm currenty involved in the P-SON project, which addresses the issue of using light-weight protocols to impose the right amount of structure on otherwise random overlay networks, specifically in developing applications for the NeEM epidemic multicast protocol. I've been working on a server-friendly RSS feeds caching and dissemination architecture that leverages p2p networks to accomplish its task.
Name and address of employer	Universidade do Minho - `http://www.uminho.pt/` Computer Science and Technology Center - `http://cctc.di.uminho.pt/` Distributed Systems Group - `http://gsd.di.uminho.pt/` Braga, Portugal

Education and training

Dates	2008 - Present
Title of qualification awarded	Mestrado em Informática - `http://msc.di.uminho.pt`
Name and type of organisation providing education and training	Universidade do Minho - `http://www.uminho.pt/` Portugal
Level in national or international classification	ISCED 6B
Comments	Current grade: 14/20 Completion on September 2008, with an expected grade of 16/20
Dates	2007

Title of qualification awarded	Licenciatura em Engenharia Informática
Name and type of organisation providing education and training	Universidade do Minho - http://www.uminho.pt/ Portugal
Level in national or international classification	ISCED 5B
Cumulative Grade Point Average	13/20
Dates	2001 - 2007
Title of qualification awarded	Licenciatura em Engenharia de Sistemas e Informática (5 year Bachelor of Science in Computer Science) I.T. Branch
Name and type of organisation providing education and training	Universidade do Minho - http://www.uminho.pt/ Portugal
Level in national or international classification	ISCED 5A
Comments	Not completed due to transfer to the Bologna model
Dates	2000/01
Title of qualification awarded	Ensino Secundário
Name and type of organization providing education and training	Escola Secundária S.Pedro, Vila Real Portugal
Level in national or international classification	ISCED 3
Cumulative Grade Point Average	18/20
Dates	2000
Title of qualification awarded	Certificate of Proficiency in English
Name and type of organization providing education and training	University of Cambridge Local Examinations Syndicate International Examinations
Level in national or international classification	CEFR C2
Grade awarded	Certificate Grade A
Dates	1998
Title of qualification awarded	First Certificate in English
Name and type of organization providing education and training	University of Cambridge Local Examinations Syndicate International Examinations
Level in national or international classification	CEFR B2
Grade awarded	Certificate Grade A

Technical skills and competences

Programming Languages	Java, SQL, C, Perl, PHP, JavaScript, Bash Scripting, Haskell and Prolog. Software modeling using UML. Application monitoring/management using JMX.
	Development of distributed applications based on RMI and CORBA, as well as using group communication toolkits like Spread and jGCS.
System administration	Installation, configuration and maintenance of Linux systems (Ubuntu, YellowDog), Windows (9x family, XP) and Mac OS X Leopard
Networking	Some experience with the ns-2 network simulator, and SNMP-based monitoring/management. Also, usage experience with CISCO IOS (version 12.2).
Security	Usage and configuration of: Iptables, SSL, GPG/GnuPG, as well JAVA cryptography API (IAIK), public key/asymmetric and shared key/symmetric cryptography, digital certificates and Wi-Fi security (WEP, WPA). Experience with PARI-GP.
Source code management	Usage of source code management: Bazaar-ng (bzr) and Subversion (svn). Issue tracking with Trac. Experience in Maven (mvn) build system.
Databases	Installation and usage of relational databases: Oracle, PostgreSQL and SQLite.
Web Services	Development using servlet engines (Jetty, Apache Tomcat)
Others	Advanced knowledge of: LaTeX and XML. Experience with GNU Octave, and GNU R.

Personal skills and competences

Mother tongue(s) **Portuguese**

Self-assessment *European level*(*)	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user
French	B1 Independent user	B1 Independent user	B1 Independent user	B1 Independent user	A2 Basic user
Spanish	B1 Independent user	B1 Independent user	B1 Independent user	B1 Independent user	A2 Basic user

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

Other skills and competences	Member of Universidade do Minho ACM Sigplan Student's Chapter - `http://uminho.acm.org`
	Member of GIL, Universidade do Minho Linux User & Research Group - `http://gil.di.uminho.pt`
	Participated in the "Minho Campus Party", both on 2002 and 2003, by organizing competitions in the Programming, Security and Linux areas.
Driving licence(s)	Category B vehicle

Additional information

References available upon request

LICENCIATURA EM ENGENHARIA DE SISTEMAS E INFORMATICA
Grades Transcript

Ana Nunes

April 30, 2008

The following grades are expressed in a scale of 0 to 20. Only the grades for completed courses are mentioned.

First year

Linear Algebra and Analytical Geometry	10
Mathematical Analysis (Calculus) I	11
Mathematical Analysis (Calculus) II	12
Computer Systems' Concepts	10
Physics I	14
Physics II	11
Discrete Mathematics I	10
Discrete Mathematics II	14
Programming Paradigms I (Functional Programming)	10
Programming Paradigms II (Imperative Programming)	17

Second year

Computer Architecture I	13
Mathematical Analysis Complements	10
Electricity and Magnetism	11
Electronics	14
Economic Engineering I	13
Economic Engineering II	12
Programming Methods I	13
Programming Methods II	10
Statistical Methods	13
Programming Paradigms III	13
Digital Systems I	12

Third year

Computer Architecture II	11
Data Communication and Networks	17
Applied Statistics	15
Foundations of Telecommunications	15
Operational Research I	18
Operational Research II	12
Programming Methods III	13
Numerical Methods I	17
Language Processing I	14
Digital Systems II	13
Operating Systems I	15
Operating Systems II	17

Fourth year

Computer Communications I	15
Information Systems Development	12
Cultural Option I - Technical English I	18
Cultural Option II - Experiential Formative Methodologies	16
Option I - Scripting as a Programming Paradigm	14
Option II - Foundations of Cryptography	12
Option TI - Computer Graphics	10
Option TII	12
Knowlegde Representation	15
Data Acquisition Systems	14
Intelligent Systems	16
Distributed Operating Systems I	13

Fifth year

Option IV - Network Simulation	16
Option TIV - Telematic Systems	16
Option TV - Distributed Operating Systems	10
Option TIII - Applied Cryptography	12

UNIVERSITY of CAMBRIDGE
Local Examinations Syndicate
INTERNATIONAL EXAMINATIONS

First Certificate in English

This is to certify that

ANA LUISA PARREIRA NUNES

has been awarded

CERTIFICATE GRADE A

in the Examination for the
First Certificate in English

Date of Examination **JUNE 1998**

Place of Entry **VILA REAL**

Reference Number **986PT0310008**

Vice-Chancellor
University of Cambridge

Certificate Number 0513226

COPY

UNIVERSITY of CAMBRIDGE
Local Examinations Syndicate
INTERNATIONAL EXAMINATIONS

Certificate of Proficiency in English

This is to certify that

ANA LUISA PARREIRA NUNES

has been awarded

CERTIFICATE GRADE A

in the Examination for the
Certificate of Proficiency in English

Date of Examination	**JUNE 2000**
Place of Entry	**OPORTO**
Reference Number	**006PT0058099**

Certificate Number 4340929

Vice-Chancellor
University of Cambridge

DP354

Campus de Gualtar
4710-057 Braga – P

Universidade do Minho
Escola de Engenharia

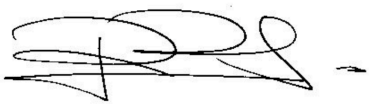
Departamento de Informática

Letter of Recommendation

Ana Luísa Parreira Nunes was my student during her Systems Engineering and Informatics graduate course at Universidade do Minho during its 3rd year, in two operating systems courses and, afterwards, during the 5th year, in the course of distributed operating systems. As a student, Ana Luísa was always very clever, interested and outstood by her perception and capacity for self-assessment.

During her graduate course, in June 2006, Ana Luísa started to work as researcher at Universidade do Minho with a grant from the European project GORDA - Open Replication of Databases (IST FP6-04758) of which I was the coordinator. In the scope of the project, Ana Luísa created a monitoring console for GORDA compliant clustered databases. Her contributions and availability to cooperate have been essential in crucial moments of the project.

Ana Luísa is currently doing her master thesis in my research group on large scale data management. She is expected to graduate later this year and I do not hesitate to recommend her to immediately pursue a doctoral course. I therefore encourage and totally support her application to a PhD. grant for the MAP–I doctoral program.



Rui Carlos Oliveira
Prof. Associado

Email: rco@di.uminho.pt
Web: http://gsd.di.uminho.pt/rco

Campus de Gualtar
4710-057 Braga - P

Universidade do Minho
Escola de Engenharia

Departamento de
Informática

Manuel Bernardo Barbosa (mbb@di.uminho.pt)
Professor Auxiliar
Departamento de Informática
Universidade do Minho
Campus de Gualtar
4710 057 Braga

sua referência	sua comunicação de	nossa referência	data
			May 2008

assunto
Recommendation letter

mensagem

Recommendation Letter

I would like to recommend Ana Nunes as a candidate for the MAP-i doctoral programme.

Ana was my student twice during her five year degree in Computer Science and, in both occasions, she was one of the most interested and committed students in class.

Ana attended my fifth year Applied Cryptography course and was one of the top scoring students. Concurrently, I supervised Ana Nunes in her final year project, where she embraced a challenging and ambitious project in connection with one of our industrial partners. Throughout her studies, Ana was always a highly motivated student who thrived in the exploratory tasks that she was confronted with.

In my opinion Ana's profile agrees with what is expected in postgraduate research-oriented degrees and, for this reason, I anticipate that Ana Nunes will be a good candidate for a Ph.D. degree in the MAP-i doctoral programme.

Manuel Bernardo Barbosa, Professor Auxiliar
Departamento de Informática da Universidade do Minho

Campus de Gualtar
4710-057 Braga – P

Universidade do Minho
Escola de Engenharia

Departamento de Informática

To Whom It May Concern

I met Ana Nunes as a student of the *Lic. Eng. Sistemas e Informática* at the University of Minho, whom I recall from lab classes as an independent minded student. Later I supervised her group's work on an one-semester research project as part of the Seminar curricular unit in the M. Sc. in Informatics at the University of Minho. The result has exceeded my initial expectations, eventually leading to a paper being submitted to an international workshop.

More recently, she has been awarded a 3 month *Bolsa de Investigação* (BI) by project P-SON – Probabilistically-Structured Overlay Networks, of which I am the Principal Investigator. Besides working on the project demonstrator deliverable as intended, she has already achieved a surprising insight in the area and been able to propose and discuss outstanding problems and possible future contributions.

Given the above, I am sure that Ana Nunes is an excellent researcher, capable of pursuing a doctoral degree with success.

Yours truly,

José Orlando Pereira
Prof. Auxiliar

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fax: +351 253 604 471