

## Europass Curriculum Vitae

### Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Homepage(s)

Nationality(-ies)

Date of birth

Gender

**Soares, Luís Manuel Oliveira**

Travessa da Carreira de Cima, n.º 35, Corvite  
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Portuguese

11<sup>th</sup> September 1979

Male



### Work Experience

Dates

Occupation or position held

Main activities and  
responsibilities

2002 - Presently

Software Engineer and Researcher

Participate in the European funded project named GORDA (Open Replication of Databases). I am directly involved in three different project activities: i) design and implementation of a general purpose data replicator written in Java (Spring IoC, Appia and jGCS). I am also a co-author of a wide-area inter-cluster replication protocol (WICE) included in the replicator; ii) implementation of the GORDA API (GAPI) binding to PostgreSQL; iii) quality assurance resorting to regression testing based on unit testing (JUnit), evaluation, by means of hybrid simulation mixing real/simulated components under realistic environments, continuous integration, and statistical performance assessment using python and R. I was also responsible to perform source code maintenance (using bazaar, maven2 and trac).

Took part in the National funded project named ESCADA (Fault Tolerant Scalable Distributed Databases). Responsible for testing and evaluation of the protocols under study (DBSM and PDBSM) which required instrumentation of the Linux kernel and PostgreSQL internals. Results obtained were published in relevant scientific papers on multi-master synchronous database replication protocols.

Within the context of the national program Porto Digital, participated in all stages of the Portorama product development life-cycle (currently in beta-testing stage). The product enables the sharing of geo-referenced Oporto photos using P2P, GoogleMaps and GWT. I was responsible to implement the website using Java and AppFuse (Hibernate, Spring MVC, Spring IoC, MySQL, AXIS, Acegi and Jetty). Additionally, participated in the client side development (using GWT and AJAX).

Maintained several sites based on Plone content management system. These included the research group website as well as the GORDA, PSON, ESCADA and StrongRep projects websites. I was responsible to customize the access control engine by modifying ACLs and content workflows. These modifications greatly reduced complexity while sharing content with the public in general as well as sharing content among project partners.

	<p>Installed and currently support internal servers based on CentOS and Ubuntu. The set of services provided include: plone, qmail, ezmlm, xen, vmware, apache2, jetty, ldap, samba/nfs/OCFSv2, bind, dhcp. I was also responsible to drive software development into using maven2 as the build tool, hudson as continuous integration framework and trac as the issue management system. Together these three tools, which I maintain on a daily basis, with the help of bazaar SCM and proximity (maven2 proxy), increased productivity and reduced software project management complexity.</p> <p>As a teacher assistant, lectured operating systems concepts and design, focusing distributed multi-threaded programming. The technology used in the classes was Linux and C.</p>
Name and address of employer	<p>Universidade do Minho - <a href="http://www.uminho.pt/">http://www.uminho.pt/</a>  Computer Science and Technology Center - <a href="http://cctc.di.uminho.pt/">http://cctc.di.uminho.pt/</a>  Distributed Systems Group - <a href="http://gsd.di.uminho.pt/">http://gsd.di.uminho.pt/</a>  Braga, Portugal</p>
Dates Occupation or position held	<p>2002 - 2006  Software Engineer and Systems Administrator - Part-time Collaboration.</p>
Main activities and responsibilities	<p>Established a VoIP product based on Asterisk software PBX which is currently replacing the traditional PBXs, present core business of the company.</p> <p>Maintained and developed the company content management system, which automated internal content deployment leading to increased business. Reimplemented the company website based using Mambo CMS. The new website, eased interaction between customers and Bragaredes as well as attracted more web visitors.</p> <p>Led software development (python/GTK and MVC paradigm) for retrieving data from several devices like bar-code label scanners and present it to the user.</p> <p>Administered web hosting servers. Common duties involved handling qmail, apache, plesk and backups issues. I was also responsible to provide support for internal servers (debian sarge): tasks included maintenance of the following services: Exim, MailMan, Plone, Mambo, Drupal, Asterisk, Apache, Samba, IPCop firewall and VPNs using IPsec.</p>
Name and address of employer	<p>Bragaredes - I.R.I Telecomunicações, Lda.  Braga, Portugal</p>
Dates Occupation or position held	<p>2002 - 2002  Systems Analyst (Concurrently with university classes).</p>
Main activities and responsibilities	<p>Maintained a data warehouse batch process, based on Oracle/Retek solutions, by writing ProC and PL/SQL scripts.</p>
Name and address of employer	<p>Enabler S.A  Oporto, Portugal</p>

## Publications

*A Pragmatic Protocol for Database Replication in Interconnected Clusters, in In Proc. of The 12th IEEE International Symposium Pacific Rim Dependable Computing, (PRDC'06), Riverside - USA, December 2006.*

*Evaluation of Group-based Database Replication Using Centralized Simulation, Master Thesis,, Universidade do Minho, Braga - Portugal, July 2006.*

*Group-based Replication of On-line Transaction Processing Servers, in Proc. of the 2nd Latin-American Symposium on Dependable Computing, (LADC'2005), Salvador da Bahia - Brazil, October 2005.*

*Experimental Performability Evaluation of Middleware for Large-Scale Distributed Systems, in Proc. of the 7th Intl. Workshop on Performability Modeling of Computer and Communication Systems, (QEST-PMCCS'2005), Torino - Italy, September 2005.*

*Testing the Dependability and Performance of Group Communication Based Database Replication Protocols, in IEEE Intl. Conf. on Dependable Systems and Networks - Performance and Dependability Symposium, (DSN-PDS'2005), Yokohama - Japan, June 2005.*

*Revisiting Epsilon Serializability to improve the Database State Machine, in Proc. of the Workshop on Dependable Distributed Data Management, (SRDS-WDDDM'2004), Florianópolis - Brazil, October 2004.*

*Evaluating database replication in escada (position paper), in Proc. of the Workshop on Dependable Distributed Data Management (SRDS-WDDDM'2004), Florianópolis - Brazil, October 2004.*

*Avaliação de um SGBD replicado usando simulação de redes, Conferência de Redes e Computadores, (CRC'2003), Bragança - Portugal, October 2003.*

## Education and training

Dates	2006 - Presently
Title of qualification awarded	<i>Philosophiæ Doctor</i> (Ph.D.).
Name and type of organisation providing education and training	Universidade do Minho - <a href="http://www.uminho.pt/">http://www.uminho.pt/</a> Braga, Portugal
Level in national or international classification	ISCED 6.
Comments	Ongoing.
Dates	2003 - 2006
Title of qualification awarded	Master of Informatics.
Name and type of organisation providing education and training	Universidade do Minho - <a href="http://www.uminho.pt/">http://www.uminho.pt/</a> Braga, Portugal
Level in national or international classification	ISCED 6.
Comments	Cumulative Grade Point Average: 17/20. Thesis rated <i>Very Good</i> (top grade).
Dates	1997 - 2002
Title of qualification awarded	Licenciatura em Engenharia de Sistemas e Informática (5 year Bachelor of Science in Informatics) I.T. Branch

Name and type of organisation providing education and training	Universidade do Minho - <a href="http://www.uminho.pt/">http://www.uminho.pt/</a> Braga, Portugal
Level in national or international classification	ISCED 5A.
Comments	Cumulative Grade Point Average: 15/20.
Dates	1990 - 1995
Title of qualification awarded	First Certificate of English (University of Cambridge ESOL Examinations).
Name and type of organisation providing education and training	Instituto Britânico de Guimarães Guimarães, Portugal
Comments	Final Grade Point: B.
<b>Technical skills and competences</b>	
System Administration	7+ years of strong and extensive Linux/UNIX system engineering and administration proficiency in complex client/server enterprises (using GNU/Linux since 1997 - Red Hat 5.0) — Red Hat based (Red Hat, Fedora Core, Mandrake / Mandriva) and Debian based (Debian, Knoppix, Ubuntu) distributions — x86, PowerPC, & RISC architectures — Tools: syslog, log-watch, ntop, rsync, ethereal, tcpdump, etc. Capable of administering Xen and VMWare virtual machines.
Services and Protocols	7+ years proficiency in TCP/IP networking infrastructure: router, switch, and WiFi access point configuration; services administration: DNS, SNMP, FTP, HTTP/S, DHCP, NTP, IMAP/S, POP/S, SMTP, Samba, NFS, LDAP (OpenLDAP and Fedora DS); security: Netfilter/iptables, VPN, etc.
Software/Web Development	Proficiency in web/software application development: Java (RMI, JDBC, JCA), Python, Perl, groovy, PHP, SQL, XML (XSL), YAML, C, Visual Basic, Prolog, Bash shell, HTML, CGI, UML software modeling and Algebra of programming (implemented in Haskell and VDM), Berkeley Sockets, RPC, Threads. Make use of Eclipse framework for Java/C/Python development. Capable of developing and deploying solutions based on group communication toolkits, specifically: Spread, JGroups and Appia.
Source Code Management	Advanced skills in source code management with extensive experience in gnu-arch (tla), Bazaar (baz), Bazaar-ng (bZR). Issue tracking with trac and plone collective-ng. Experience in Maven2 (mvn) build system and administering maven repositories and proxies (using proximity and Jetty). Continuous Integration experience, using Hudson.
Testing and evaluation	Expert knowledge in testing, evaluation and benchmarking. Familiar with several workloads (especially TPC-C and TPC-W) and extensive skills in unit testing (JUnit, PyUnit) and simulation modeling (SSF, SSFNet, OM-Net++, JSim). Distributed systems testing know-how.
Voice Over IP (VoIP)	Experience in engineering and administering Open Source telecommunications switching and PBX powered by Asterisk; with features like conference calling, voicemail, and automatic call distribution, and supporting technologies like VoIP (SIP), ISDN, GSM, and PSTN channels.

Databases, Web and Mail Servers

Implementation and Maintenance of Linux mail servers: Qmail (mainly qmail-toaster) and Exim. Deployment and administration of mailing-lists (using ezmlm and mailman) as well as setting up mail filters (maildrop and procmail), SPAM filters (bogofilter, spamassassin and dspam) and anti-virus (clamav). Proficient in database, web server and network server administration, particularly Apache web server and PostgreSQL and MySQL.

Security

Practical application of security technology to business applications, and thorough understanding of cryptography practices including public key/asymmetric and shared key/symmetric cryptography, digital certificates, md5sum/cheksums, SSL, and PKI. Tools include PGP/GnuPG, SSH, Java Cryptography Architecture, OpenSSL, Apache certificates, WiFi Security (WEP, WPA), Tripwire, Nmap etc.

Web Frameworks

Development and management of web frameworks: Zope/Plone, AppFuse, Spring, Google Web Toolkit, Mambo, Drupal.

Others

Advanced knowledge of:  $\LaTeX$ , YAML, XML, XHTML.

## Personal skills and competences

Mother tongue(s)

**Portuguese**

*Self-assessment  
European level<sup>(\*)</sup>*

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user
B1 Independent user	B1 Independent user	A2 Basic user	A2 Basic user	A2 Basic user

<sup>(\*)</sup> Common European Framework of Reference (CEF) level

**English**

**Spanish**

Other skills and competences

Teaching Assistant.

Article Reviewing (Co-reviewer for ICDCS'06, ICDCS'07 and the XXXII Conferência Latinoamericana de Informática).

Driving licence(s)

Category B vehicle

## Additional information

Current Vice-chair of the University of Minho ACM Sigplan Student's Chapter - <http://uminho.acm.org>

Student merit award at Universidade do Minho (2000 and 2001).

References available upon request