

Europass Curriculum Vitae

Personal information



First name(s) / Surname(s) **Alfrânio Correia**
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E-mail(s) alfranio@hotmail.com ; alfranio@lzd.di.uminho.pt
Nationality Brazilian
Date of birth 18 December 1972
Gender Male

Desired employment / Occupational field **Distributed Systems, Fault-Tolerance, Database Architecture, Database Replication.**

Work experience

Dates Occupation or position held Main activities and responsibilities	<p>01 October 2002 →</p> <p>Researcher and Assistant Professor</p> <p>Research on Database Replication based on Group Communication:</p> <ol style="list-style-type: none"> 1 - Study of different protocols for database replication most of them based on group communication. 2 - Help in the development of a simulator to test replication protocols. 3 - Study of distributed execution mechanisms and algorithms to cope with partially replicated databases. 4 - Design of an API for database replication (GAPI). 5 - Implementation of the API on PostgreSQL and SleepyCat. 6 - Study and implementation of serializability on databases that provide snapshot isolation and among replicated databases with different concurrency control mechanisms. 7 - Help in development of the API on different databases such as Derby. 8 - Study of techniques such as Epsilon Serializability in order to provide weak consistency criteria. 9 - Draft implementation of the API on MySQL. <p>Taught "Introduction to Informatics" and "Operating Systems".</p> <p>Currently, I am a member of the GORDA project which aims to foster database replication as a means to address the challenges of trust, integration, performance, and cost in current database systems underlying the information society. In the past, I worked in the following projects:</p> <ul style="list-style-type: none"> * MobiSnap - The main goal of this project was to provide methodologies and tools to deploy relational database applications on mobile computers. Our research focused on two main areas: mobile transaction model and divergence control. * StrongRep - The project proposed to address the problem of maintaining strongly-consistent replicated data in a large-scale setting. To achieve this goal, the project intended to combine recent research of replication management with broadcast protocols optimized for large-scale operation. * Escada - The project aimed to study, design and implement transaction replication mechanism suited to large scale distributed systems.
Name and address of employer Type of business or sector Dates	<p>University of Minho</p> <p>Academia</p> <p>01 March 2001 - 30 September 2002</p>

Occupation or position held	Technical Management and Developer
Main activities and responsibilities	1 - Development of solutions based on Java for content management.
Name and address of employer	ILIMIT
Type of business or sector	Content Management / Web Services
Dates	01 February 1999 - 30 September 2002
Occupation or position held	Assistant Professor
Main activities and responsibilities	Taught Operating Systems.
Name and address of employer	Catholic University of Salvador
Type of business or sector	Academia
Dates	01 August 1999 - 28 February 2001
Occupation or position held	Consultant
Main activities and responsibilities	Consultant on Microsoft applications such as Windows NT, Windows 2000, MS-SQL Server 7.0: 1 - Tune of MS-SQL Server Databases. 2 - Lectures on such products. 3 - Migration from different database vendors to MS-SQL. 4 - Deployment of MS-SQL Server Databases and Windows.
Name and address of employer	Infotraining
Type of business or sector	Specialized Training and Services on Microsoft
Dates	01 September 1996 - 31 August 1999
Occupation or position held	Network Administrator
Main activities and responsibilities	Network administration on a network with more than 500 computers. In particular, I was responsible for the design of the network infra-structure from scratch.
Name and address of employer	Tribunal Regional Eleitoral
Type of business or sector	Government Elections

Education and training

Dates	01 January 2005 →
Title of qualification awarded	PhD
Principal subjects / occupational skills covered	Database replication, Fault tolerance, Group communication
Name and type of organisation providing education and training	University of Minho
Dates	01/10/2002 - 30/06/2004
Title of qualification awarded	Masters in Computer Science
Principal subjects / occupational skills covered	Database replication, Fault tolerance, Group communication
Name and type of organisation providing education and training	University of Minho
Dates	01/03/1998 - 31/12/1999
Title of qualification awarded	Specialist in Distributed System
Principal subjects / occupational skills covered	Agents, Fault tolerance, workflow
Name and type of organisation providing education and training	Federal University of Bahia

Dates 01 January 1993 - 31 December 1997
 Title of qualification awarded Graduation
 Principal subjects / occupational skills covered Computer Science
 Name and type of organisation providing education and training Catholic University of Salvador

Personal skills and competences

Mother tongue(s) **Portuguese**

Other language(s)

Self-assessment
 European level (*)

English

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user

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

Social skills and competences Team spirit;

Good ability to adapt to multicultural environments;

Organisational skills and competences Team and technical leader on most enterprises that I worked in.

Computer skills and competences 1 - (+10 years) Microsoft Certified System Engineer and Microsoft Certified Database Administrator.

2 - (+10 years) I have worked with a variety of database products such as PostgreSQL, Oracle, MS-SQL Server, SleepyCat, Sybase and Access.

3 - (+7 years) I have worked with Java and C.

4 - (+10 years) Experience with TPC-IP Networking.

5 - (+5 years) Experience with bash and python.

Driving licence(s) Category B

Additional information

Publications:

* Adaptive Middleware for Complex Heterogeneous Distributed Systems 2008 (ACM SAC).

* On the use of a reflective architecture to augment Database Management Systems 2007 (Journal of Universal Computer Science).

* GORDA: An Open Architecture for Database Replication 2007 (IEEE NCA).

* Revisiting 1-copy Equivalence in Clustered Databases, 2006 (ACM SAC).

* A Pragmatic Protocol for Database Replication in Interconnected Clusters, 2006 (IEEE PRDC).

- * Evaluating Certification Protocols in the Partial Database State Machine, 2006 (IEEE ARES)
- * Experimental Evaluation of Database Replication Protocols (Abstract), 2006.
- * Testing the dependability and performance of group communication based database replication protocols, 2005 (IEEE DSN).
- * Group-based replication of on-line transaction processing servers, 2005 (LADC).
- * Evaluating database replication in ESCADA (Position Paper), 2004 (IEEE SRDS).
- * Revisiting Epsilon Serializability to improve the Database State Machine (Extended Abstract), 2004 (IEEE SRDS).
- * Avaliação de um SGBD Replicado Usando Simulação de Redes, 2003 (in Portuguese).
- * Executing Workflows with Mobile Agents from UML Specifications, 2003.