



Europass Curriculum Vitae

Personal information

Surname(s) / First name(s) **Claudino Pereira Lopes, Nuno**
E-mail nuno.lopes@ist.utl.pt
Personal Homepage <http://web.ist.utl.pt/nuno.lopes/>
Nationality Portuguese
Date of birth 03/Aug/1986
Gender Male

Work experience

Dates October 2009 to present
Occupation or position held Junior Researcher
Main activities and responsibilities

- Compiler optimizations
- Software verification

Name of employer INESC-ID, Portugal
Type of business or sector R&D Institution

Dates February 2009 to July 2009
Occupation or position held Internship
Main activities and responsibilities

- Declarative networking
- Distributed software model checking

Name of employer Max Planck Institute for Software Systems (MPI-SWS), Germany
Type of business or sector R&D Institution

Dates September 2007 to September 2008
Occupation or position held Teaching assistant
Lectured courses

- Analysis and Synthesis of Algorithms (Spring 2008)
- Operating Systems (Fall 2007)

Name of employer Instituto Superior Técnico (IST), Portugal
Type of business or sector University

Dates September 2004 to December 2007
Occupation or position held Internship
Main activities and responsibilities

- Robot (AIBO) simulator development
- Robot software development

Name of employer Institute for Systems and Robotics – Lisbon (ISR), Portugal
Type of business or sector R&D institution

Education and training

Dates October 2009 to present
Title of qualification awarded PhD Program in Information Systems and Computer Engineering
Principal subjects covered Compiler Optimizations
Name of organisation providing education and training Instituto Superior Técnico (IST) – Technical University of Lisbon

Level | PhD / ISCED 6

Dates | September 2007 to October 2009

Title of qualification awarded | Master in Information Systems and Computer Engineering

Principal subjects covered | Distributed Systems, Software Engineering

Name of organisation providing education and training | Instituto Superior Técnico (IST) – Technical University of Lisbon

Level | MSc / ISCED 5 A

Dates | September 2004 to July 2007

Title of qualification awarded | Degree in Information Systems and Computer Engineering

Principal subjects covered | Software Engineering, Computer Hardware basics, Algorithms

Name of organisation providing education and training | Instituto Superior Técnico (IST) – Technical University of Lisbon

Level | BSc / ISCED 5

Personal skills and competences

Mother tongue(s) | **Portuguese**

Other language(s)

Self-assessment
European level ()*

English

French

German

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent User	C1	Proficient User	B2	Independent User	B2	Independent User	B2	Independent User
A2	Basic User	A2	Basic User	A1	Basic User	A1	Basic User	A1	Basic User
A1	Basic User	A1	Basic User	A1	Basic User	A1	Basic User	A1	Basic User

(*) *Common European Framework of Reference for Languages*

Organisational skills and competences | • involved in the ENEI 2006 (Portuguese CS/CE students meeting) organization (back-end and sponsors relations)

Artistic skills and competences | • guitar player

Other skills and competences | • Boy scout since 1994

Driving license | Portuguese, category B

Talks

- Distributed and Predictable Software Model Checking, 24/01/2011, VMCAI'11
- Applying Prolog to Develop Distributed Systems, 19/07/2010, ICLP'10
- Things that no one should know about C, 04/12/2008, PLP class
- Building a JIT compiler for PHP in 2 days, 01/08/2008, LLVM developers' meeting
- Debugging C/C++ Applications, 26/04/2007, NEIIST
- Web Applications Security – practical examples in PHP, 28/03/2007, NEIIST
- Keeping OPEN-R alive: Why and How, 03/2006, ISR meeting
- PHP meets Unicode, 13/10/2005, NEIIST
- PHP security, 17/03/2005, NEIIST

Publications

- S. Grebenshchikov, A. Gupta, N. P. Lopes, C. Popeea, A. Rybalchenko. HSF(C): A Software Verifier based on Horn Clauses. In *Proc. of the 18th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS)*, Mar. 2012.
- N. P. Lopes and A. Rybalchenko. Distributed and Predictable Software Model Checking. In *Proc.*

of the 12th International Conference on Verification, Model Checking, and Abstract Interpretation (VMCAI), Jan. 2011.

- N. P. Lopes, L. Aksoy, V. Manquinho, J. Monteiro. Optimally Solving the MCM Problem Using Pseudo-Boolean Satisfiability. Technical Report RT/43/2010, INESC-ID, Nov. 2010.
- N. P. Lopes, J. A. Navarro, A. Rybalchenko, A. Singh. Applying Prolog to Develop Distributed Systems. *Theory and Practice of Logic Programming, 26th Int'l. Conference on Logic Programming (ICLP'10) Special Issue*, 10(4-6):691-707, July 2010.
- N. P. Lopes. *Practical Executable Specifications for Distributed Systems*. Master thesis, Instituto Superior Técnico, Oct. 2009.
- F. Cabecinhas, N. P. Lopes, R. Crisóstomo, L. Veiga. Optimizing Binary Code Produced by Valgrind. Technical Report RT/46/2008, INESC-ID, Aug. 2008.
- N. P. Lopes and P. U. Lima. openSDK: an open-source implementation of OPEN-R. In *Proc. of the 7th International Joint Conference on Autonomous Agents and MultiAgent Systems (AAMAS)*, pages 1207-1210, May 2008.
- L. Iocchi, L. Marchetti, R. Nardi, P. Lima, M. Barbosa, H. Pereira, N. P. Lopes. SPQR + ISocRob RoboCup 2007 Qualification Report. Technical Report, ISR Lisbon, 2007.
- P. Lima, M. Barbosa, J. Esteves, N. P. Lopes, V. d'Orey, H. Pereira. ISocRob-4LL 2006: Team Description Paper. Technical Report, ISR Lisbon, 2006.

Scientific Community Service

- Reviewer, 20th European Symposium on Programming (ESOP), Mar. 2011.
- Reviewer, 17th RCRA International Workshop on "Experimental evaluation of algorithms for solving problems with combinatorial explosion", June 2010.
- Reviewer, 9th ACM SIGPLAN-SIGSOFT Workshop on Program Analysis for Software Tools and Engineering (PASTE), June 2010.

Contests/Awards

- Best TU Lisbon students award, 2010
- Merit award for top computer engineering students at IST, 2007/2008
- Zend's international PHP 5 programming contest, 2004, 27th place
- Portuguese National Robotic Contest, 2004, 11th place
- Portuguese National Robotic Contest, 2003, 1st place

Additional information

- Attended the Oregon Summer School 2008 on "Logic and Theorem Proving in Programming Languages"
- Participated in RoboCup 2007 (Atlanta)
- Google Summer of Code (SoC) mentor (PHP project), 2006-2008
- First aid (2006/2010) and civil protection (2006) courses
- Open-source contributor since 2003 with the following projects: PHP, LLVM, clang, valgrind, re2c, libgd, libtidy.