Luís Gabriel Ganchinho de Pina

INESC-ID Room 138, Rua Alves Redol 9, 1900-029 Lisboa, PORTUGAL
+351 213 100 361 — luis@luispina.me — http://www.luispina.me

Research Interests

Dynamic Update Systems, Software Transactional Memories, Binary Translation, Multiprocessor Programming, Lock-free Algorithms, Programming Languages

Professional Experience

University of Maryland, College Park, MD, USA
Research Assistant - Programming Languages Group (PLUM)
September 2012 — March 2013

- Research on Dynamic Sofware Updates: Prototype system that supports efficient and general purpose dynamic software updates for Java applications on stock JVMs.

INESC-ID, Lisbon, Portugal
Researcher - Software Engineering Group (ESW)
March 2012 — present
September 2008 — September 2011

- Research on Dynamic Sofware Updates: Prototype system that supports atomic dynamic updates using a Software Transactional Memory and binary translation techniques at the JVM bytecode level,
- Research on Software Transactional Memory Technology (JVSTM): Mechanisms to detect and reduce conflicts between concurrent transactions.

Education

Instituto Superior Técnico, Technical University of Lisbon, Portugal
PhD in Information Systems and Computer Engineering
January 2010 — present

- Advisor: Dr. João Cachopo, IST, Technical University of Lisbon, Portugal
- Co-Advisor: Dr. Michael Hicks, University of Maryland, College Park, MD, USA

Instituto Superior Técnico, Technical University of Lisbon, Portugal
MsC in Information Systems and Computer Engineering
November 2009

- Advisor: Dr. João Cachopo, IST, Technical University of Lisbon, Portugal
- Final Grade: 18/20

Instituto Superior Técnico, Technical University of Lisbon, Portugal
BSc in Information Systems and Computer Engineering
September 2007

- Final Grade: 17/20

Published Papers

Luís Pina and Michael Hicks. Rubah: Efficient, general-purpose dynamic software updating for java. In *Fifth Workshop on Hot Topics in Software Upgrades*. USENIX, June 2013.

Luís Pina and João Cachopo. Atomic dynamic upgrades using software transactional memory. In *Fourth Workshop on Hot Topics in Software Upgrades*. ICSE, June 2012.

Luís Pina and João Cachopo. Profiling and tuning the performance of an stm-based concurrent program. In *Workshop on Transitioning to Multicore*. OOPSLA, October 2011.

Luís Pina. Towards a pragmatic atomic dynamic software upgrade system. In *Proceedings of the International Conference on Dependable Systems and Networks (DSN)*. DSN, June 2009.

Technical Reports

Luís Pina and João Cachopo. Reducing conflicts on JVSTM transactions - STMBench7: A case study. Technical Report 39/2011, INESC-ID, August 2011.

Luís Pina and João Cachopo. DuST'M - Dynamic Software Upgrades using Software Transactional Memory. Technical Report 32/2011, INESC-ID, June 2011.