

Mario Méndez-Lojo

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Education

Ph.D. in Computer Science, U. of New Mexico (USA), 2004-2008.
M.B.A. in Finances, U. of New Mexico (USA), 2006-2008.
M.S. in Computer Science, U. of New Mexico (USA), 2004-2005.
B.S. in Software Engineering, U. of La Coruña (Spain), 1995-2000.

Research

Automatic Parallelization of Irregular Programs

advisor: K. Pingali

2008–present
U.T. Austin (USA)

The Galois system provides Java primitives that the programmer can use in order to automatically parallelize graph-based algorithms. The framework not only hides the complexity of multithread programming, but also takes care of the existing dependencies between parallel executions. *Keywords:* concurrency, speculative execution, bytecode instrumentation, Soot.

Static analysis of Java bytecode (dissertation work)

advisor: M. Hermenegildo

2004–2008
U. of New Mexico (USA)

My dissertation work focuses on static analysis, abstract interpretation-based techniques that infer properties of a program at compile time. *Keywords:* Java 5, bytecode, IntelliJ, Ant, SVN.

Employment

Automatic Extraction of Structured Web Information

Google

Summer 2007
Mountain View, CA

I collaborated with the Search Quality team in the development and maintenance of tools that facilitate the retrieval of structured information from competitor's search engines. *Keywords:* Unit testing, Java 5, XPath, Regex, Perforce, Eclipse.

Scalable Web Application Group Manager

GIT Consultants

2002-2003
Palma de Mallorca (Spain)

Management of a group of nine people designing and coding part of the Social Security information system; my main contribution was the introduction of the Extreme Programming methodology in our daily routine. *Keywords:* XP, JUnit, XSL, Weblogic, EJB 2.0, CVS, Javascript, MySQL.

Development of a Metasearch Tool

DeNodo Technologies

2001
La Coruña (Spain)

Design and coding of an engine which presents to the user the results of searching for a product in several Internet shops (Google Products style) in a unified fashion. *Keywords:* Java, XML.

Teaching Experience

Introduction to Java Course

Computer Science Dpt, University of Holguín

2000
Holguín (Cuba)

Introductory and intermediate concepts of the language were taught to second year bachelor students. Under my supervision, a web based (Servlets, JSP) application was developed as final project.

Selected Publications ¹

- M. Marron, M. Méndez-Lojo, M. Hermenegildo, D. Stefanovic, and D. Kapur. Sharing Analysis of Arrays, Collections, and Recursive Structures. In *ACM WS on Program Analysis for Software Tools and Engineering (PASTE'08)*. ACM, November 2008.
- M. Méndez-Lojo, O. Lhoták, and M. Hermenegildo. Efficient Set Sharing using ZBDDs. In *21st International Workshop on Languages and Compilers for Parallel Computing (LCPC'08)*, LNCS. Springer-Verlag, August 2008.
- M. Méndez-Lojo and M. Hermenegildo. Precise Set Sharing Analysis for Java-style Programs. In *9th International Conference on Verification, Model Checking and Abstract Interpretation (VMCAI'08)*, number 4905 in LNCS, pages 172–187. Springer-Verlag, January 2008.
- M. Méndez-Lojo, J.Ñavas, and M. Hermenegildo. A Flexible (C)LP-Based Approach to the Analysis of Object-Oriented Programs. In *17th International Symposium on Logic-based Program Synthesis and Transformation (LOPSTR'07)*, August 2007.

Selected Activities, Honors, and Awards

Reviewer for many international conferences: ASPLOS, PPOPP, LCPC, SAS, etc.

Prince of Asturias Graduate Research Fellowship in Information Science and Technology at the University of New Mexico (2004-2008).

References

Available upon request

Skills

CS related: Java and J2EE, XML (XPath, XSL), SML, C#, Ajax, Python, many VCS (SVN, Perforce, CVS) and IDE (Emacs, IntelliJ, Eclipse, Visual Studio).

Languages: Spanish (native), Portuguese (native), English (TOEFL score 253 in Dec, 2003).

Good communication skills (GMAT score 700 in Mar, 2006).

¹For a complete list of publications, please refer to my webpage.