

Flavio Lerda

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Computer Science Department
School of Computer Science
Carnegie Mellon University
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Education

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| 2001-present | Ph.D. Student
Computer Science Department
Carnegie Mellon University, Pittsburgh, PA |
| 2005 | Master Degree in Computer Science
from Computer Science Department
Carnegie Mellon University, Pittsburgh, PA |
| 2000 | Laurea Degree in Software Engineering , 110/110 cum laude
from Dipartimento di Automatica e Informatica
Politecnico di Torino, Torino, Italy |

Work Experience

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| Summer 2006 | Summer Intern at Google
Google Inc., Mountain View, CA |
| Summer 2002 | Summer Student Research Program
NASA Ames Research Center/RIACS, Moffett Field, CA |
| 1999-2001 | Visiting Scientist
in the Automated Software Engineering Group
at NASA Ames Research Center, Moffett Field, CA |

Teaching Experience

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| Spring 2004 | Teaching Assistant
<i>15-212 "Principle of Programming"</i> with Prof. Michael Erdmann
Carnegie Mellon University, Pittsburgh, PA |
| Fall 2003 | Teaching Assistant
<i>15-411 "Compiler Design"</i> with Prof. Peter Lee
Carnegie Mellon University, Pittsburgh, PA |
| 1999 | Adjunct Teacher
<i>"Concurrent Systems Programming"</i>
at CSEA, Torino, Italy |

Skills

Programming: Multiple years of experience in *C/C++, Java, PHP, OCaml*.
Operating Systems: Unix, Linux (programming and administration), Windows
Databases: MySQL (programming and administration).
Languages: *Italian* (native), *English* (proficient), *Japanese* (basic).

Interests

Tools and techniques for the development of **reliable software**.
Software engineering and the software development process.
Programming language design and compilers.
Web development and programming languages for web application.
Distributed systems programming and verification.
User interface design and programming.
East Asian languages and automated/human-assisted translation tools.

Awards

- 2003 **“Engineering Innovation Award” co-recipient**
for the development of Java PathFinder
from NASA's Turning Goals into Reality Award Program
- 1995 Recipient of an award to the best sophomores
from Politecnico di Torino
- 1994 Recipient of an award to the best freshmen
from Politecnico di Torino
- 1994 Recipient of an award to the best freshmen at Mondovì campus
from the Rotary Club

Publications

- “Relay Model Checking and Formula Decomposition for Path Planning”**
Gi Hwon Kwon, Flavio Lerda, Edmund Clarke
International Conference on Software Engineering and Applications, 2006
- “Model Checking of Robotic Control Software”**
Sebastian Scherer, Flavio Lerda, Edmund M. Clarke
International Symposium on Artificial Intelligence, Robotics, and Automation in Space, 2005
- “Proof-Guided Underapproximation-Widening for Multi-Process Systems”**
Orna Grumberg, Flavio Lerda, Ofer Strichman, Michael Theobald
Proc. of the 32nd Symposium on Principles of Programming Languages, 2005
- “Understanding Counterexamples with explain”**
Alex Groce, Daniel Kroening, Flavio Lerda
Lecture Notes in Computer Science, Volume 3114, 2004
- “A Tool for Checking ANSI-C Programs”**
Daniel Kroening, Edmund Clarke, Flavio Lerda
Lecture Notes in Computer Science, Volume 2988, 2004
- “Symbolic Model Checking of Software”**
Flavio Lerda, Nishant Sinha, Michael Theobald
Electronic Notes in Theoretical Computer Science, Volume 89 Issue 3, 2003
- “Model Checking Programs”**
Willem Visser, Klaus Havelund, Guillaume Brat, Seungjoon Park, Flavio Lerda
Automated Software Engineering, Volume 10 Issue 2, 2003
- “From States to Transitions: Improving Translation of LTL Formulae to Büchi Automata”**
Dimitra Giannakopoulou, Flavio Lerda
Lecture Notes in Computer Science, Volume 2529, 2002
- “Addressing Dynamic Issues of Program Model Checking”**
Flavio Lerda, Willem Visser
Lecture Notes in Computer Science, Volume 2057, 2001
- “Distributed-Memory Model Checking with SPIN”**
Flavio Lerda, Riccardo Sisto
Lecture Notes in Computer Science, Volume 1680, 1999

References

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|-------------------------|----------------------------------------|------------------------------------------------------------------------|
| Edmund M. Clarke | Ph.D. Advisor at Carnegie Mellon | emc@cs.cmu.edu |
| John Penix | Colleague at NASA Ames Research Center | jpenix@google.com |
| Micheal Lowry | Area Lead at NASA Ames Research Center | lowry@email.arc.nasa.gov |
| Peter Lee | Professor at Carnegie Mellon | petel@cs.cmu.edu |
| Riccardo Sisto | Advisor at Politecnico di Torino | riccardo.sisto@polito.it |