

CURRICULUM VITÆ

CALIN GLITIA

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EDUCATION AND ACADEMIC EMPLOYMENT

September 2009–present
Postdoc, INRIA Sophia Antipolis Méditerranée, team-project AOSTE

2006–2009 *PhD Computer Science*, University of Science and Technology of Lille, France
Thesis: Optimizations for systematic and intensive signal processing applications on Systems-on-Chip
Defended on November 23, 2009

2005–2006 *Master of Science*, École Normale Supérieure de Lyon, France
Thesis: Code transformations for systematic signal processing and memory size optimizations
Final Grade: 14.67 of 20, 8th of 19 students

2000–2005 *Dipl.Ing.*, Faculty of Automatics and Computers, Polytechnic University of Timișoara, Romania
Thesis: A performance analysis on web services for mathematical systems
Thesis Grade: 9.79 of 10, Final Grade: 9.08 of 10

1996–2000 *Software Programmer*, National College “Emanuil Gojdu”, Oradea, Romania
Bachelor Degree: 9.88 of 10

TEACHING EXPERIENCE

2010–2011 Lecture and seminar on model transformations for *Introduction to Model Driven Engineering*, Polytech’Nice-Sophia

2009–2010 Teaching assistant for *Algorithms and data structures*, Polytech’Nice-Sophia

2008–2011 Teaching assistant for *Advanced architecture* Course, Science and Technology University of Lille

OTHER WORK EXPERIENCE

2007–2008 Participation to the Ter@ops project from the System@tic pole.

01/2006–07/2006 MSc Internship at INRIA Dart team-project (Embedded Systems), INRIA Futurs, Villeneuve d’Ascq, France

01/2005–05/2005 Software engineer at Berg Computers, Timișoara, Romania

06/2004–08/2004 Internship at Siemens-VDO, Toulouse, France

PUBLICATIONS

INTERNATIONAL JOURNALS [2]

Calin Glitia, Pierre Boulet, Eric Lenormand, and Michel Barreteau. Repetitive model refactoring strategy for the design space exploration of intensive signal processing applications. *Journal of Systems Architecture*, In Press, Corrected Proof:–, 2011.

Calin Glitia, Philippe Dumont, and Pierre Boulet. Array-OL with delays, a domain specific specification language for multidimensional intensive signal processing. *Multidimensional Systems and Signal Processing*, 2009.

PEER REVIEWED INTERNATIONAL CONFERENCES [3]

Calin Glitia and Pierre Boulet. High level loop transformations for multidimensional signal processing embedded applications. In *International Symposium on Systems, Architectures, Modeling, and Simulation (SAMOS VIII)*, Samos, Greece, July 2008.

Calin Glitia and Pierre Boulet. Interaction between inter-repetition dependences and high-level transformations in array-ol. In *Conference on Design and Architectures for Signal and Image Processing (DASIP 2009)*, Sophia Antipolis, France, September 2009.

Calin Glitia, Julien DeAntoni, and Frédéric Mallet. Logical time at work: capturing data dependencies and platform constraints. *International Forum for Design Languages (FDL 2009)*, sep 2010.

PEER REVIEWED INTERNATIONAL WORKSHOPS [1]

Calin Glitia. Interaction between delays and high-level transformations in array-ol. In *2nd Artist Workshop on Models of Computation and Communication*, Eindhoven, Netherlands, July 2008.

RESEARCH REPORTS [3]

Calin Glitia and Pierre Boulet. High level loop transformations for systematic signal processing embedded applications. Research Report 6469, INRIA, 03 2008.

Calin Glitia, Pierre Boulet, Eric Lenormand, and Michel Barreteau. Repetitive Model Refactoring for Design Space Exploration of Intensive Signal Processing Applications. Research report, 08 2009.

Calin Glitia, Julien Deantoni, and Frédéric Mallet. Logical time at work: capturing data dependencies and platform constraints. In *Forum for Design Languages (FDL) Proceedings of the 2010 Forum on specification & Design Languages*, pages 240–246, Southampton Royaume-Uni, 09 2010. Electronic Chips & Systems design Initiative (ECSI).

TALKS, PRESENTATION OR DEMOS [4]

Calin Glitia. Gaspard : review at the end of ter@ops project: presentation and demo. In *Plenary meeting at the end of Ter@ops project*, Palaiseau, France, June 2009.

Calin Glitia. Gaspard2 démo. In *Workshop on Massively Multiprocessor and Multicore Computers*, Rocquencourt, France, February 2009.

Calin Glitia. Optimizations for systematic and intensive signal processing applications on system-on-chip. In *EuroDocInfo09 : 2nd Transnational gathering of PhD Students in Computer Science and IT*, Mons, Belgium, January 2009.

Calin Glitia. Logical time at work: capturing data dependencies and platform constraints. In *Seventeenth Seminar on Synchronous languages, modeling, and programming*, Fréjus, France, November 2010.

THESIS [2]

Calin Glitia. A performance analysis on web services for mathematical systems. Master's thesis, "Polytechnica" University of Timisoara, Romania, June 2005.

Calin Glitia. Code transformations for systematic signal processing and memory size optimizations. Master's thesis, École Normale Supérieure de Lyon, France, June 2006.

REVIEWER

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| 2008–2009 | ACM TECS, Special Issue on Model-based Design for Embedded Systems,
http://www.artist-embedded.org/artist/Proceedings,1398.html |
| 2009 | RenPar'19, French-speaking Meetings of Parallelism,
http://www.irit.fr/Toulouse2009/index.html |
| 2009 | SOC 2009, International Symposium on System-on-Chip 2009,
http://soc.cs.tut.fi/2009/index.php |

HONORS AND AWARDS

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| 04/1999 | Third Prize at the National Olympiad of Computer Programming, Medias, Romania |
| 04/1998 | First Prize at the National Olympiad of Computer Programming, Oradea, Romania |
| 02/1998 | First Prize at "Grigore Moisil" Interregional Contest of Computer Programming and Mathematics, Zalau, Romania |
| 1996–2000 | Prizes at regional and interregional contests of Computer Programming, Mathematics and Physics |

RESEARCH INTERESTS

Computer architecture, system design, validation, verification.

Intensive signal processing, multidimensional specification, models of computations.

Systems-on-Chip, co-design, Model-Driven Architectures (MDA).

High-level optimizations, data and task parallelism, parallel execution platforms.

Synchronous languages, time models, time constraints.

LANGUAGES

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| Romanian | mother tongue |
| English | excellent |
| French | excellent |

TECHNICAL SKILLS

Programming paradigms:

- Imperative, functional or declarative languages.
- Iterative, structural/procedural, object-oriented or event-driven programming.
- Textual, visual/graphical, component-based or automata-based programming (finite state machines).

Programming methodologies, algorithmic, programming language theory, program optimizations.

Programming Languages: C, C++, Pascal, Delphi, Java, Prolog, Caml, ...

Specification Languages: Process Networks, Synchronous Dataflow Family, Alpha, Array-OL, ...

Parallel programming models: assembly (SIMD, SPMD, ...), libraries (Threads, MPI), languages (HPF, OpenMP, ...).

Model Driven Engineering: Eclipse, Ecore, UML, Model Transformations (QVTo, ATL), ...

Database management, networks, system administration, operating systems (Windows, UNIX, MacOSX).

Computer architectures, microprocessors and micro-controllers, CPU, GPU, assembly language, hardware description languages (VHDL, Verilog), ModelSim, ...

L^AT_EX, Microsoft Office, OpenOffice.

HOBBIES AND INTERESTS

Mountain activities (ski, climbing, tracking), cycling, rugby, music, literature, car mechanics

REFERRALS

Professor Pierre BOULET, University of Science and Technology of Lille, France,
pierre.boulet@lifl.fr
<http://www.lifl.fr/~boulet/>

Robert de Simone, Research director, Scientific director of the AOSTE team-project, INRIA Sophia
Antipolis Méditerranée, France,
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http://www-sop.inria.fr/members/Robert.De_Simone/
