romain@gatech.edu

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## Education

Georgia Institute of Technology, Atlanta GA

PhD in Computer Science (switch from ECE)

Georgia Institute of Technology, Atlanta GA

MS in Electrical and Computer Engineering

Ecole Centrale de Lyon, Lyon France

Diplôme d'ingénieur

January 2005 - August 2011 (expected)

GPA: 3.91/4.0

August 2004 - December 2005

GPA: 3.9/4.0

September 2002 - December 2005

With highest honors

# Research Experience

Getting around Amdahl's law: novel programming models for multi-cores

Current

Prof. Santosh Pande

- N-way programming model: Speeding up sequential computations through diversity
- Explore thread interaction and collaboration models

#### **Software Transactional Memories**

Current

Prof. Santosh Pande

- Improve the performance of STMs by leveraging programmer supplied information

Streaming polymorphous architecture compiler

January 2005 - May 2006

Profs. Krishna Palem and Sudhakar Yalamanchili

- Helped build a back-end for the Trimaran compiler to target the streaming and dataflow configurations of Monarch, a reconfigurable streaming processor
- Developed an Eclipse GUI to allow debugging and cycle-by-cycle visualization of the execution of data-flow programs

# Teaching Experience

• CS6241: Compiler Design (Prof. Santosh Pande)

Spring 2007

Introduced the Trimaran compiler system and aided students with projects

• ECE6100: Advanced Computer Architecture (Prof. Krishna Palem)

Spring 2006

# Work Experience

## Intel Corporation, Champaign, IL

June-August 2010

Summer Intern under Robert Knight and Lee Baugh

Parallel Tools Group

- Evaluated how to differentiate application characteristics using PMC on Atom
- Initial work on power tools for Atom

#### Intel Corporation, Champaign, IL

May-August 2008

Summer Intern under Arch Robison

Threading Building Blocks Project

- Studied performance aspects of parallel prefix implementations in TBB and OMP
- Implemented the Galois model of computation in TBB

## AtoFina Elf CTL, Pierre Bénite France

June - August 2004

Summer Intern

Distributed Systems - Front Office Team

- Led a study on the feasibility of moving workstations from Windows to Linux
- Successfully setup a Linux workstation based on the study

### Service

- Graduate Student Council President: Lead the executive committee of the Georgia Tech College of Computing Graduate Student Council (August 2009-Present)
- Graduate Student Representative: Represented the graduate students of the School of Computer Science at Georgia Tech (April 2008-August 2009)

# Skills

- Programming Languages: C, C++, Cg, Java, Caml, Python, SQL, PHP, HTML, Bash
- Optimizating Compilers and Development Environments: Eclipse, Trimaran, LLVM
- Platforms: MacOS X, Linux, UNIX, Windows
- Languages: French, English, Spanish (working knowledge)