Raghesh A. Résumé

Contact

PACE Lab

Information

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RESEARCH INTERESTS Compiler optimizations, Verification of parallel programs

EDUCATION

• Doctor of Philosophy (Ongoing)

Aug 2012 - current

- Institution: Indian Institute of Technology Madras, Chennai, India.
- Advisor: Dr. V. Krishna Nandivada

• Master of Technology in Computer Science & Engg.

Apr 2011

- Institution: Indian Institute of Technology Madras, Chennai, India.
- Advisor: Dr. Shankar Balachandran
- CGPA: 8.67

• Bachelor of Technology in Information Technology.

Jun 2005

- Institution: MES College of Engineering, University of Calicut, India.
- Percentage: 74.

EXPERIENCE

• Lecturer

Feb 2007 – Jul 2012

Department of Information Technology (On study leave From Aug 2009 – Apr 2011) MES College of Engineering, Kerala, India.

• Software Engineer

Aug 2005 – Jan 2007

Aricent Communications, Chennai, India

PROJECTS

• Polly: Polyhedral optimizations for LLVM

Worked in this project during M.Tech.

Details can be found at http://polly.llvm.org/

• Google Summer of Code

Participant of Google Summer of Code 2011.

Details can be found at http://polly.llvm.org/documentation/memaccess.html

• Installer for GNU Hurd

Details can be found at http://gnu.ethz.ch/hurd/pgm.txt

Publications

• Polly - Polyhedral Optimization in LLVM

Tobias Grosser, Hongbin Zheng, Raghesh Aloor, Andreas Simbrger, Armin Grlinger, Louis- Nol Pouchet. IMPACT at CGO 2011.

http://polly.llvm.org/publications/raghesh-a-masters-thesis.pdf

• A Framework for Automatic OpenMP Code Generation

Raghesh A. Masters Report (May 2011).

http://polly.llvm.org/publications/grosser-impact-2011.pdf

CURRENT RESEARCH

• Verification of parallel programs, specific to OpenMP

Currently working on a project which ensures consistent behavior when OpenMP barriers are placed inside work-sharing constructs like parallel-for.

SKILLS SUMMARY

- Operating System: GNU/Linux
- Programming Languages: C, C++, Python, Shell, java
- Tools: gdb, jtb and javacc, ROSE compiler framework, Eclipse, LLVM, git, svn.
- Others: Exposure to Linux kernel internals and ext2 filesystem.

Hobbies

• Playing Carnatic Flute.