Zuyu (Anthony) Zhang

Resume

1210 W Dayton St, Madison, WI 53706, USA
+1 (608) 886-2699
zuyu@cs.wisc.edu
http://www.cs.wisc.edu/∼zuyu

OBJECTIVE

Seeking for summer internship position on **System-related Data Management**.

EDUCATION

Ph.D. student, Computer Sciences 2012-present
M.S., Computer Sciences 2012-Dec 2013 (Expected)
University of Wisconsin-Madison, Madison, WI, USA

M.Eng., Computer Systems Organization 2010-2012
Harbin Engineering University (HEU), Harbin, China
Thesis: LLVM based Back-end Porting for C*Core

B.Eng., Computer Science and Technology 2006-2010
Harbin Institute of Technology (HIT), Harbin, China

TECHNICAL SKILLS

Prog. Lang.: C/C++, BASH scripting, X86 AT&T Assembly, and VHDL.
Tools: LLVM, SimSoC, DynInst, GIT, SVN, LaTeX, and TiKZ.

EXPERIENCE

Project Assistant, UW-Madison Jul 2013-Present
- Extracted landscape information from satellite imagery.
- Filtered the extracted data set using four machine learning algorithms: Support Vector Machine, k-Nearest Neighbors, Neural Network, and Decision Tree.

Research Assistant, UW-Madison Aug 2012-May 2013
- Performed static analysis and dynamic instrumentation for packed binaries.

LLVM Back-end Porting for C*Core Architecture, HEU Sep 2011-Jul 2012
- Devised DAG lowering operations and transformations from LLVM IR.
- Designed selection patterns for 70 instructions and back-end optimization passes.
- Produced function prologue/epilogue.

Internship, INRIA-Tsinghua, Beijing Nov 2010-May 2011
- Proposed a **macro-block** based approach to speedup the **SimSoC** simulator using LLVM Just-In-Time (JIT) engine.
- Accelerated 35% on average and up to 60%.

PUBLICATIONS

Zuyu Zhang, Vania Joloboff, Xinlei Zhou, Claude Helmstetter, and Guoyin Zhang, "Fast Dynamic Translation Using LLVM On Multi-Core Hosts", The Fifth Workshop on *Architectural and Microarchitectural Support for Binary Translation* (**AMAS-BT**), in conjunction with ISCA, 2012

SCHOLARSHIPS

1^{st} Class Graduate Scholarship, top 15%, twice, HEU 2010-2012
3^{rd} Class Scholarship, top 20%, twice, HIT 2007-2009

EXTRA-CURRICULARS

Vice President, ACM Student Chapter, UW-Madison Apr 2013-present
President, IBM Technology Club, HIT 2009-2010