Zuyu (Anthony) Zhang

Resume

1210 W. Dayton St.
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EDUCATION

Ph.D. Student, Database Systems 2012-present
M.S., Computer Sciences 2012-2013
University of Wisconsin-Madison, Madison, WI, USA

M.Eng., Computer Systems Organization 2010-2012
Harbin Engineering University (HEU), Harbin, China

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

TECHNICAL SKILLS

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

EXPERIENCE

Teaching Assistant for Computer Network, UW-Madison Jan 2014-present
- Grading projects using Mininet, an emulator for Software-Defined Networks.

Selected Course Projects, UW-Madison Sep 2012-Dec 2013
- **Advanced Operating Systems**: Measured performance of Linux virtual memory system, and benchmarked a user-level direct access filesystem for simulated Storage-Class Memory (SCM) using PostMark mail-server workloads.
- **Distributed Systems**: Implemented client and server prototypes for a distributed replicated filesystem using Two-Phase Commit protocol (2PC).
- **Principles of Programming Languages**: Applied beta reduction in the De Bruijn notation, implemented Algorithm W for type inference, and performed binding-time and function annotation analyses in OCaml.

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

Research Internship, INRIA-Tsinghua, Beijing Nov 2010-May 2011
- Proposed a compiler-assisted approach to speedup the **SimSoC** simulator using LLVM Just-In-Time (JIT) engine.
- Exploited a **macro-block**-based Dynamic Binary Translation (DBT) technique.
- Accelerated 35% in average, and achieved 95 MIPS with peeks at 125 MIPS.

SCHOLARSHIPS

1^{st} Class Graduate Scholarship, HEU, **twice** 2010-2012
3^{rd} Class Scholarship, HIT, **twice** 2007-2009

EXTRA-CURRICULARS

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

INTERESTS

Sailing, skiing, and clarinet.