

Luming Zhang

MS candidate in Computer Engineering and Computer Sciences, luming@cs.wisc.edu

Objective: Co-op/Entry-Level position in Software Development

Strength: Excellent programming, algorithm skills with solid knowledge on hardware.
Fast learning ability and solving problem independently.

Code Samples <https://github.com/luming89/CodeSamples>

EDUCATION

Sep. 2013 - (Dec. 2015) *University of Wisconsin - Madison, WI, U.S.A.*

M.S. candidate - College of Engineering, Department of Electrical & Computer Engineering

M.S. candidate - College of Letters & Science, Department of Computer Sciences

- GPA: 3.7/4.0

Sep. 2008 - July 2012 *Xi'an Jiaotong University, Xi'an, Shaanxi, China*

B.S. in Microelectronics - School of Electronic and Information Engineering

SKILLS (Self Ranking: ***strong, **good, *familiar)

Languages C++ (CUDA)***, Java***, C***, C#**, Python**, Objective-C**,
JavaScript*, PHP*, Verilog HDL*

OS & Database Unix/Linux**, MySQL**

PROFESSIONAL EXPERIENCES

Software Development & Engineering Intern at Amazon.com, Seattle, WA May 2015 - Aug.2015

- Developed a local configuration verifier which speeds up the original verification process by 1000x. Using Google Guice to inject dependency, Mockito to mock out unnecessary components and Jersey to make it a service.

Project Assistant in the Department of Engineering Physics, Jan. 2014 - June 2014

- Fixing bugs and exploiting parallelism of the Plasma Simulation Code which is recently rewritten with C(CUDA)

Summer Intern at the Institute of Computing Technology, Beijing, China July 2012 - Aug.2012

- Use gem5 simulator to determine the variation of locality of shared memory on multicore platform with PARSEC 2.1 the workload.
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COURSE PROJECT

Computer Graphics 3D Air Battle Game, using OpenGL and C++ Fall 2014

- Improved a game engine and built a 3D Air Battle Game. Demo: <https://www.luminghub.com>

Database Systems A Buffer Manager, A File Manager, using C++ Fall 2014

- The buffer manager uses the Clock Algorithm to manage the buffer pool.
- The file manager supports all common operations and B+ tree indexing.

Compiler CSX Compiler in Java & Passes of LLVM Compiler in C++ S. & F. 2014

- Built a front-end CSX compiler which consists of a token scanner, a parser, a name analyzer, a type checker and a code generator.
- Implemented a back-end LLVM optimizer which performs peephole, live variable, loop invariant analysis and register allocation.

Computer Architecture RISC Processor & GPU Warp Scheduler in C++ Fall 2013, Spring 2015

- 5-stage pipelined RISC processor which contains 16 instructions and a local branch predictor.
- Implemented a Criticality-Aware Warp Scheduler to replace naive ones like round robin, which is unable to hide latencies properly for many applications because of execution time disparity.

Operating Systems XV6 operating system and programming using C Fall 2013

- Implemented a shell, system calls, a process scheduler, virtual memory features, and a multi-threaded web server.
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HONORS

- 2010 National Scholarship, top 5%