***Luming Zhang***

MS candidate in Computer Engineering and Computer Sciences, [luming@cs.wisc.edu](mailto:lzhang338@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>

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**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

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

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

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

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**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%