***Luming Zhang***

M.S. in Computer Sciences, [luming@cs.wisc.edu](mailto:lzhang338@wisc.edu)

Strength: Excellent programming, algorithm intuition and skills. 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, Madison, WI, U.S.A.***

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

- GPA: 3.6/4.0

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

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

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

Languages C++ (CUDA)\*\*\*, Java\*\*\* ,C\*\*\*, C#\*\*, Python\*\*, JavaScript\*, PHP\*

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

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**PROFESSIONAL EXPERIENCES**

***Software Development & Engineer at Amazon.com, Seattle, WA Feb. 2016 - present***

* Took over an unfinished project which will enable the platform to retry the charge to reduce bad debt. The project was completed and launched successfully.

***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)

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**COURSE PROJECT**

***Computer Graphics OpenGL & C++, Demo:*** <https://www.luminghub.com> ***F. 2014 & F. 2015***

* Improved a game engine and built a 3D Air Battle Game.
* Implemented SIMBICON walking controller using Open Dynamics Engine.

***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%