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# *Luming Zhang*

M.S. in Computer Sciences, luming@cs.wisc.edu

Strength: Excellent programming, algorithm intuition and skills. Fast learning ability and solving problem independently.

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

## 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

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

Languages C++ (CUDA)***, Java*** ,C***, C#**, Python**, JavaScript*, PHP*
OS & Database Unix/Linux**, MySQL**

## 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)

## 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.

## HONORS

2010 National Scholarship, top 5%