

Luming Zhang

608-556-6182

luming@cs.wisc.edu

Code Samples

MSEE candidate in Computer Engineering, F1 Visa

Objective: Internship/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.

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

EDUCATION

Sep. 2013 - (Dec. 2015)

M.S. candidate

University of Wisconsin - Madison, WI, U.S.A.

- College of Engineering, Department of Electrical & Computer Engineering

- GPA: 3.7/4.0

Sep. 2008 - July 2012

B.S. in Microelectronics

Xi'an Jiaotong University, Xi'an, Shaanxi, China

- School of Electronic and Information Engineering

GPA: 85.4/100 Rank: 11/91

SKILLS

Languages

C++ (CUDA), C, Python, Java, JavaScript, Objective-C (App Store: sofit - 50%), Swift, PHP, HTML&CSS, Verilog HDL

OS & Database

Unix/Linux, MySQL

PROFESSIONAL EXPERIENCES

Jan. 2014 - June 2014

Project Assistant in the Department of Engineering Physics, University of Wisconsin - Madison

Fixing bugs and exploiting parallelism of the Plasma Simulation Code. The PSC was re-written with CUDA C recently and some applications have bugs. All bugs found in the Harris Sheet Reconnection and the Kelvin-Helmholtz applications are fixed using CUDA-GDB.

Sep. 2012 - June 2013

Research Assistant at the University of Science and Technology of China

PCB design for experimental quantum communication system.

July 2012 - Aug.2012

Research Assistant at the Institute of Computing Technology, Chinese Academy of Sciences, Beijing, China

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

COURSE PROJECT

Computer Graphics

Fall 2014

3D Roller Coaster Game, 3D Air Battle Game with OpenGL and C++

Using game engine featuring mesh, shaders, render engine & physics engine.

Demo: <https://www.luminghub.com>

Database Systems

Fall 2014

A Buffer Manager, A File Manager with B+ tree indexing in C++

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

Compiler

Spring & Fall 2014

CSX Compiler in Java & Optimizer of LLVM Compiler in C++

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 an back-end LLVM optimizer which performs peephole, live variable, loop invariant analysis and register allocation.

Computer Architecture

Fall 2013

Implemented a Wisc-Fall13 Processor with Quartus

5-stage pipelined RISC processor which contains 16 instructions and a local branch predictor with Quartus.

Operating Systems

Fall 2013

XV6 operating system and programming in C

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

Graduate Project

Spring 2012

Performance and Area Evaluation of OpenRISC 1200 Core with Verilog

Implemented an OpenRISC 1200 Core, which achieved 130434 Dhrystone iteration/sec when running at 100MHz and cost 5797 logic elements.