Bo Zhang

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Objective

Seeking a full-time position of CPU Performance Engineer

Education

University of Michigan, Ann Arbor - MI, USA
Master in **Electrical Engineering** - **GPA: 3.8/4.0** Sep. 2014 - Dec. 2015
Relevant courses: Computer Architecture, Operating System, Microachitecture, Embedded System, Computer Vision, Solid-State Device
Shanghai Jiao Tong University, - Shanghai, China
Bachelor in **Electrical Engineering** - **GPA: 3.76/4.0** , **Valedictorian** 2010 - 2014
Relevant courses: Computer Organization, Logic Design, Programming and Intro to Data Structures, Semiconductor Devices, Design of Microprocessor Based Systems

Work Experience

Oracle, Austin, TX April 2016 - Now
CPU Performance Analysis Engineer

- Use Java microbenchmarks to evaluate performance on both SPARC and x86 machines
- Investigate and solve performance issues on SPARC HW and SW
- Write direct assembly test verifying performance features of new SPARC processor
- Verify new SPARC core performance boost on FPGA platform
- Work on improving Java performance on Linux-SPARC platform with SW fix
- Tune default Hotspot JVM flag setting for T8 SPARC

National Instruments, Austin, TX Summer 2015
Hardware Engineer Intern

- Created an interface between Digital Input Module and FPGA Chassis using VHDL
- Developed test benches and scripts verifying interface design on both IP level and SoC level
- Developed plug-in VIs in Labview and tested on real hardware of Digital Input Module

Skills

Languages: Java, Scala, System Verilog, VHDL, C/C++, Matlab, bash script, perl, assembly
Applications: Synopsys VCS, ModelSim, Xilinx, Simulink, Labview

Course Project

RTL Design of Out-of-order Microprocessor in Verilog Winter 2015

- Implemented a synthesizable 4-way super-scalar out-of-order P6 processor
- Responsible for implementing LSQ for data forwarding, functional units, reservation station, renaming table
- Developed test bench for both IP level and SoC level verification

Multi-threaded Secure Network File Server Fall 2015

- Implemented a network file server with socket programming, client-server system, hierarchical file system and security protocols
- Enabled clients using file server to interact with it via encrypted network messages
- Used c++11 thread lock to support safety and concurrency

Face Detection Based on Adaboost Algorithm in Matlab Fall 2014

- Trained a single Adaboost classifier with 50 weak-learners on provided data
- Selected and visualized 50 Haar-like features out of 50,000
- Achieved more than 99% accuracy of face detection for trained data and 95% for untrained data