

Bo Zhang

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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, Microarchitecture, 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

AMD, Austin, TX

Nov 2017 - Present

Sr. APU/CPU Power and Performance Engineer

- Project performance for AMD's next generation low power mobile APU, and high-end desktop CPU
- Debug performance issues and conduct competitive analysis
- Perform pre-silicon performance analysis, SOC simulation, and power & performance optimization
- Test, validate and correlate new modeling

Oracle, Austin, TX

April 2016 - Oct 2017

CPU Performance Analysis Engineer

- Use Java microbenchmarks to evaluate performance on both SPARC and x86 servers
- 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

May 2015 - Aug 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