

**OBJECTIVE:** To obtain a full-time engineering management or hardware engineering position nearer to my parents in Idaho which will allow me to balance career growth with raising my family in an area of the country that I love.

**EDUCATION: UNIVERSITY OF MISSOURI - ROLLA (NOW: MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY)**

B.S. Electrical Engineering, May 2000  
B.S. Computer Engineering, May 2000  
Minors: Math, Computer Science  
Major GPA: 3.50/4.0 - Cumulative GPA: 3.20/4.0

**EXPERIENCE: ITWATCHDOGS**

Apr 2010 - Present

Environment Monitors and Smart Power Strips - Embedded Electronics  
Senior Hardware Engineer

Austin, Texas

- Designed embedded microprocessor and microcontroller systems, sensors, and other electronics associated with our products.
- Performed all hardware and firmware design, prototyping, and bringup activities associated with products I designed, including schematic capture, board layout, prototype builds, writing firmware and test scripts, and giving guidance to the software team for ecosystem level integration.
- Championed planning, justification, and design of next-generation family of products.
- Mentored junior level hardware engineer.
- Instituted formal design guidelines and parts management procedures which are required for multiple hardware engineers to be able to collaborate effectively on various products.

**RIPCODE (NOW: RGB NETWORKS)**

Mar 2007 - Apr 2010

Digital Video Transcoders - High Speed Embedded Electronics (startup)  
Hardware Engineer

Austin, Texas

- Responsible for all hardware architecture, design, prototyping, test, certification, procurement, and manufacturing activities as part of a two person comprehensive hardware team which included only myself and the Director of Hardware Engineering in Dallas.
- Directed hardware design and layout activities performed by contractors in India and the US.
- Performed hardware and firmware bringup of new system boards and had significant involvement in initial Linux OS bringup activities.
- Customized firmware and software that included work on U-Boot, Linux drivers, and board support packages.
- Managed lab layout, procedures, procurement, network configuration, and Linux server setup, administration, and maintenance.
- Collaborated with customers to facilitate custom installations, demonstrate systems, and debug problems.

**NEWSYS**

Feb 2003 - Jul 2003, Apr 2004 - Mar 2007

Server Computers - 2-4 socket AMD Opteron based (startup)  
Hardware Engineer

Austin, Texas

- Designed circuit boards including making system design decisions, schematic capture, interfacing with board layout personnel, and coordinating with manufacturing and procurement.
- Performed initial bringup, debug, and testing of multiple products.
- Coordinated design and test activities with teams in Taiwan and India including schematic

- and layout reviews, test planning, and prototype manufacturing and debugging.
- Participated in cost reduction efforts for multiple projects. This included part cost evaluation, subsystem redesign, and feature modifications and reduction.
- Executed tests, resolved problems, and recommended and implemented design changes and improvements to our multi-processor AMD Opteron and Intel Xeon based servers.
- Analyzed, debugged, and tested various interfaces including PCI, PCI-X, PCIe, SATA, SCSI, I<sup>2</sup>C, JTAG, USB, IDE, DDR, HyperTransport, and Gigabit Ethernet.
- Supported FCC, CISPR, and VCCI compliance testing and resolved EMC/EMI problems.
- Provided hardware support and assistance in debugging of BIOS and other firmware issues.
- Wrote and executed test plans and procedures for multiple products.
- Collaborated with manufacturing to determine and resolve manufacturing issues.

## **DELL**

Oct 2003 - Apr 2004

Server Computers - Intel processor based

Austin, Texas

Product Test Engineer

- Wrote test plans for Dell server products.
- Supervised execution of test plans.
- Developed test cases for new technologies and applications.

## **MOTOROLA (NOW: FREESCALE SEMICONDUCTOR)**

Jun 2000 - Mar 2002

Network Set-Top Boxes - Embedded Electronics

Austin, Texas

System Test Engineer - Multimedia Systems Division

- Developed and executed tests on PowerPC based consumer set-top box.
- Planned, designed, and performed full audio test suite for the product, including analog and digital input and output performance, and Dolby Digital compliance.
- Designed environmental test suite, including thermal stress, power line EMI tolerance, DC power tolerance, UL conformance.
- Worked closely with design engineering to develop defect resolutions and correct EMC design issues.
- Participated in testing and redesign of analog audio and video (NTSC/PAL) subsystems.
- Performed MPEG standards compliance and device compatibility testing.
- Wrote test automation scripts using a variety of software packages including LabView and Visual Basic.
- Performed Ethernet, ATM, ADSL, and VDSL network testing.