

Siva Maheswaran

-Email me on Indeed: <http://www.indeed.com/r/Siva-Maheswaran/3c85ce29f5dbb0f8>

Master Technologist (Embedded Systems Software)

Embedded Systems Software/Firmware Engineer with proven ability to identify root causes & offer creative, long-term problem resolution.

Demonstrated expertise:

- Architecting high and low level software/firmware solutions
- Excellent project management, and execution skills; Strong team leader, mentor and motivator
- Strong fundamentals of real-time embedded system design
- Delivering high quality embedded S/W products in C/C++, using various RTOS
- Hands on expertise writing device drivers from technical datasheets, BSP dev & board bring ups
- Agile Software Development Life Cycle (SDLC)
- Strong knowledge of hardware/software interaction facets of embedded systems

Work Experience

Master Technologist - Embedded Systems S/W (Super Computer/HPC)

Hewlett Packard Enterprise - Houston, TX

January 2017 to Present

- Architect and develop embedded software solutions for HPE Cray liquid-cooled supercomputers
- Implement S/W stack for HPE Cray Exascale HPC system platform management (Embedded Linux)
- Develop telemetry data gathering for thermal and power management on supercomputers
- Architected flash engine/algorithm for Gen10 Apollo platforms, co-developed functional specification that defines the protocol and developed the system S/W for Apollo platform chassis manager
- Architected the embedded s/w solution for centralized backup battery system to enhance server performance; Collaborated with Taiwan H/W team to implement hardware support -Patent awarded.
- Co-architected and implemented chassis manager solution for drive bay mapping where customers can distribute and allocate drive bays to given server nodes through BMC.

Sr. Embedded Systems Software Engineer (HPC/Industry Standard Servers)

Hewlett Packard - Houston, TX

January 2012 to December 2017

- Architected, designed and implemented embedded software for Rack Environmental Controller for power efficient high performance liquid-cooled supercomputer
- Created and enforced coding standards to be followed in the team in addition to enforcing code reviews to increase the reliability, sustainability and code quality while maintaining future scalability
- Implemented new features and functionalities, including (Patent Pending) Rack Level Dynamic Power Capping, for Advanced Power Manager (APM) running Embedded Linux.
- Lead a core team, including H/W and F/W, in new H/W timely board bring-up employing U-boot and Embedded Linux; troubleshoot and fixed a H/W design flaw and brought up the board in < 2 wks

Lead Embedded Systems Software Engineer

GE Transportation - Erie, PA

January 2010 to December 2012

- Designed and implemented embedded software for Tier 4 ECU running on QNX RTOS with P2020 QorIQ and Power PC processor based platform (QNX BSP & IPL development)
- Re-architected and integrated Engine Management System (EMS) into ECU using shared-memory interface, and optimized control/data networks
- Implemented prognostics over existing diagnostics to identify and forecast failures
- Integral part of H/W design team and key decision making; Researched and recommended H/W components, and closely involved in design reviews including schematic and layout

Lead Engineer - Firmware

GE Energy - Minden, NV

January 2005 to December 2010

- Designed and implemented enhanced BIST and POST for various industrial asset condition monitoring systems employing RTOS such as VxWorks & QNX on PowerPC architecture.
- Developed Ethernet, serial EEPROM & RS-232 drivers for embedded VxWorks RTOS using C
- Led test engineers to implement automated pre-HASS BIST for monitoring systems to detect mfg. defects early in the process - reduced scrap rate, lead-time, escaping defects and cost of rework

Firmware Engineer/Manufacturing Engineer

GE Energy/Bently Nevada LLC - Minden, NV

January 2001 to December 2005

- Developed Built-in Self-Test (BIST), DSP-Self Test and Power-On Self-Test (POST) for systems used in industrial power generation where safety, reliability and security are critical
- Worked cross-functionally with R&D, successfully introducing several new products

Education

Master of Science in Electrical Engineering

University of Idaho - Moscow, ID

2010

Bachelor of Engineering in Electrical Engineering

Ryerson University - Toronto, ON

Skills

- TCP
- C
- Perforce
- Eclipse
- SVN
- Windows
- MATLAB
- Operating systems
- Confluence

- TCP/IP
- Assembly
- Computer networking
- Python
- C++
- Analysis skills
- Shell Scripting
- Bash
- Jira
- UNIX
- Git
- Linux
- ARM