

Suresh Ramamurthy

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Profile Summary

Impactful C++ Senior Software Lead/Engineer (middleware and back-end) with solid experience in embedded systems-based projects. Having around 16+ years of experience in **application software development using languages C/C++ on Linux platform**. My speciality is middle-ware application development using C/C++ on Embedded platforms (Linux, Embedded Linux).

Technical Skills

- **Programming Languages** - C, Modern C++ | **Operating Systems:** Linux, VxWorks, Embedded Linux
- **Databases:** PostgreSQL | **Technologies:** SDN, VoIP – SIP, Docker, RPC, TCP/IP, UDP, XML, JSON
- **Exposure To** – Python | **Concepts** – Data Structure and Algorithms, Unix Internals

Certification

- Embedded Linux Kernel Internals – Apr 2018 – No Expiration date
 - [Certification Verify Link](#)



Work Experience

HCL TECHNOLOGIES, CHENNAI, full-time

Dec 2012 - Present

SENIOR TECHNICAL LEAD

- Currently working as a Senior Lead cum Engineer in developing Extensible Interface Platform Application for Xerox Multi-Function Printer using C++ in Linux.
- Worked as a C++ Lead Software in developing UI (logic - middleware) using Qt/QML for Frymaster Fryer display.
- Developed logging framework for Qt application using C++.
- Developed component check feature for Frymaster Fryer using C++. This feature is used for testing all the components in the Fryer.
- One-man project – porting legacy C Code (image processing) from VxWorks 5 to VxWorks 7.
- Developed C++ microservices based application for non-real time embedded product.
- Fixed various critical crash bugs in XML Parser using X-binder.
- Lead for two engineers in IoT security product development using C++/MongoDB/RESTful API/JSON.
- Independently developed Controller Authorization module in a SDN product using C++/PostgreSQL.
- Lead for four engineers in various enhancement activities in UI C++ Development. (3 years and 6 months)
- Mentored junior engineers in fixing their unit test issues.
- Deployed Redis database as a microservice using docker.



KEY ACHIEVEMENTS

- *Achieved zero defects in multiple Small Feature Requirement implementation in WebKitGTK based solution involving changes in multiple modules using C++/Linux.*
- *Achieved zero defects in developing controller authorization module using C++ of size 5K LOC in a SDN product.*
- *Received appreciation for writing a good functional specification for a module IoT Tracer in IoT Security product.*
- *Recommended to use VxWorks 7 as the upgrade OS instead of having an Emulator over Linux for migrating legacy VxWorks 5 application from old SBC to latest SBC in the market.*

HCL AMERICA INC., SAN FRANCISCO BAY AREA, CA/PORTLAND, OR/SHREVEPORT, LA

Oct 2019 – Jun 2022

SENIOR TECHNICAL LEAD

- Worked as an onsite software engineer in developing UI (logic - middleware) using Qt/QML for Frymaster Fryer display.
- Worked in comcast wi-fi router build creation project using Yocto in integration team for 3 months.

- One-man project – porting legacy C Code from VxWorks 5 to VxWorks 7. (Total 2 years 3 months, 1 year 4 months in onsite)

ACCENTURE, CHENNAI, full-time, contract

Apr 2011 - Feb 2012

SENIOR SOFTWARE ENGINEER

- Fixed various critical bugs in production environment of a telecom software product using C++ and Oracle.
- Using design patterns designed and developed an API test automation framework using C++.



HONEYWELL, MADURAI, full-time, contract

Nov 2009 - Jul 2010

SENIOR SOFTWARE ENGINEER

- Ported C++ Code from Windows to DEOS (RTOS - Honeywell Proprietary).
- Wrote scripts for testing the Displays and Graphics software in an avionics product.



WIPRO TECHNOLOGIES, CHENNAI, full-time

Jun 2006 - Jul 2009

PROJECT ENGINEER

- One-man project – developed test automation framework from scratch for a storage product using C and Perl. (2 years)
- Developed XML get/put methods using eXpat XML Parser for the test automation framework using C.
- Interfaced C and Perl code units using XS module.
- Developed various TL1 commands for a telecom equipment using C++.
- Ported SNMP middleware from CentOS to RedHat.
- Developed RPC Client/Server modules.
- Worked on creating virtual domains using XEN framework in Linux.
- Designed SNMP middleware layer using virtualization product XEN.
- Guided fresh team members in completing their code enhancements and testing activities.



KEY ACHIEVEMENTS

- *I developed a test automation framework (one-man project) using C/Perl on Linux platform from scratch to completion. This test automation framework found nearly 20 critical defects (crashes) in Data Migration Manager (DMM) storage product. These 20 crash bugs were not found during SQA testing of DMM.*
- *Brought-up guest OS (DomU - CentOS) over another CentOS (Dom0) using XEN for a Proof-of-Concept activity.*
- *Achieved zero defects in developing various TL1 commands using C++ on Linux.*

INFINITE COMPUTER SOLUTIONS, CHENNAI (then INDIA COMNET INTERNATIONAL) Nov 2005 - Jun 2006

TRAINEE – SOFTWARE PROFESSIONAL

- As a Software Engineer, I completely read RFC 2361 – Session Initiation Protocol (SIP) and wrote SIP Parser in C. The SIP Parser module parses the SIP messages and stores in the appropriate data structure for further processing by SIP transaction engines.
- Developed TCP/IP and UDP socket programs for the SIP Server Engine.



Education

Master of Science MS, Birla Institute of Technology and Science (BITS), Pilani

2007 - 2009

- Major in **Software Systems**
- Network Programming, Object Oriented Analysis and Design, Operating Systems



Bachelor of Engineering BE, Jaya Engineering College, Anna University, Chennai

2001 - 2005

- Major in **Electronics and Communication Engineering**
- Secured **First Class with Distinction**

