Sukant Sahoo
Consultant/Software Engineer - Wipro Technology

Bellmawr, NJ - Email me on Indeed: indeed.com/r/Sukant-Sahoo/28bca46c54fb38f5

An experienced Software Engineer with more than 9.5+ years of experience in the IT industry spanning across Embedded Technology, Entertainment and Mobile device domain. Possess proven record of design and development expertise in C/C++ programming with focused on embedded domain.

• Extensive experience in the analysis, design, developing and debugging of embedded software with more focused on middleware and lower level development on Linux platform.
• Experience in creating Embedded Linux distribution using open Embedded and Yocto and Linux debian package management using Opkg embedded device package manger.
• Extensive working experience in Linux internals (Multithreading, IPC, socket programming and Driver development) in C/C++.
• Extensive experience in cable and STB development with RDK.
• Extensive experience in network (Client and Server programming using TCP/IP and UDP) and distribution processing in a multi-threading environment.
• Experience in GNU build systems Autotools and Automake.
• Extensive working experience in mobile middleware and app development in various platform (android, brew, BMP).
• Experience advanced C++ concept Object Orient Design and STL.
• Strong experience in debugging the memory related issues (Memory leak, crash, segmentation faults etc.) in embedded system and also implementing various memory management in program.
• Hands on experience in agile methodologies of software development life cycle.
• Able to work effectively with other people at all levels in a fast-paced environment.
• Quick learner of necessary skills to perform tasks that require timely execution.
Willing to relocate: Anywhere
Authorized to work in the US for any employer

WORK EXPERIENCE

Consultant/Software Engineer
Wipro Technology - Philadelphia, PA - September 2014 to Present

Client: Comcast / Philadelphia, PA Sept 2014 - Till Date
Project: XID Platform development.
Role: Consultant/Software Engineer
This project is all about development of the platform known as XID which includes the general set of technology from both the Comcast Xi and the Comcast HD DTA. The XID is expected to operate as an HD uDTA when loaded with appropriate DTA code and as a Xi client when loaded with Xi code.
• Setting up the yocto based build platform for the project
• Writing bitbake recipe for integrating various components in the project build platform.
• Interface the vendors for product requirements and making them deliverable.
• Customize the build platform to minimize the Linux rootfs.
• Understanding of the tr69client for remote management of the device and auto configuration and its interaction.
• Implementation of SOC interface apis to get the Broadcom SOCs data for diagnostic purpose using tr69 client using C++ and STL.

• Responsible for implementing various memory management in code using Smart pointer, memory pool etc using C++.
• Debugging various memory leak and crash Issue across the platform.
Environment: C/C++, Embedded Linux, GDB, Yocto, Minicom, valgrind, python, Grrit, Git, TR69.

Consultant/Software Engineer
L & T Infotech   -   Lawrenceville, GA   -   August 2012 to August 2014

CISCO / Lawrenceville, GA Aug 2012 - Aug 2014
Project: Verizon Media Server Development (STB)
Role: Consultant/Software Engineer
Media server is a powerful next generation set up box built on Linux Platform. It has 6 tuners and 1 tb of hard drive. It connects to 5 companion IP based boxes called as client and lets user to record and view up to six different TV shows or movie at the same time with no limitation or restriction. It runs on top of Broadcom chip set. The whole things work over IP and MoCA, which runs over the existing coax cable in house. The UI on media server and client is based on HTML5.
• Worked on Developing the code download module for Media gate way (The code download module supports the update of platform code image in monolithic form as well as software/firmware in package format)
• Implemented the Debian package management using opkg (creating, installing, upgrade, downgrade, un installing) in Media gate way using code download module.
• Implemented the mechanism to authenticate all debian package downloaded using code download
• Wrote C based xml security library based on libxml2 and openssl to authenticate the digital signature of campaign file in DSMCC carousal
• Compiling and integrating open sources components.
• Worked on the DSMCC filter library responsible for joining the multicast and Implemented the UDP socket in C multicast joining and receiving the data from download server.
• Writing init run level script to run the process at boot up.
• Added the USB hot plug support to update the firmware through USB device.
• Working on Debugging and troubleshooting customer reported issues at various locations.
Environment: C/C++, UML, Linux, Minicom, valgrind. Code collaborator, Git, RTC, Wire Shark, Tcpdump, shell scripts, python, openssl.

Consultant/Software Engineer
L & T Infotech   -   Lawrenceville, GA   -   February 2012 to August 2012

Client: CISCO / Lawrenceville, GA Feb 2012 - Aug 2012
Project: RTN Platform 3rd party apps integration (STB).
Role: Consultant/Software Engineer
This project is all about integeration of variuos 3rd party applications to existing set up box stack. This involves implementation changes in the middleware and driver level.
• Understaning of existing STB architecure and preparing the design docs to support the integeration efforts
• Worked on integeration of VOD application.
• Involved in fixing the issues related to Vod authorization and differntitaing channels.
• worked on integeration of Mosic , Upsell and search application.
• Prepared UML sequence diagram for various call flows using BOUML.
• Perform code review, unit testing and integration testing for application readiness.
Environment: C++, UML, STL, Linux, Minicom, valgrind. Code collaborator, Git.

Consultant/Software Engineer
L & T Infotech   -   Dallas, TX   -   October 2011 to January 2012

Client: CISCO / Dallas/TX Oct 2011 - Jan 2012

Project: ICS porting to Cisco Zydeco Media Phone
Role: Consultant/Software Engineer
This project is all about of Ice Cream porting on Cisco zydeco media phone and Dual independent Display support.
• Understanding of the Android ICS architecture.
• Prepare the design docs and API call sequence using BOUML.
• Worked in Surface flinger/ Gralloc and Hardware composer modules to add Support for dual independent display.
• worked on debugging various middle ware issues.
Environment: C++, android, ADB, DDMS, MAT, TraceView, Eclipse, BOUML.

Consultant/Software Engineer
L & T Infotech - June 2011 to September 2011

Client: SAMSUNG / South Korea June 2011 - Sept 2011
Project: Ginger Bread Samsung Galaxy Porting(SPHD700)
Role: Consultant/Software Engineer
This project is all about of porting of the Samsung Galaxy device running in android Froyo to Ginger Bread.
• Understanding of the Android GB architecture.
• Worked in Stage freight, Surface flinger and other middleware components issues debugging and troubleshooting issues reported during porting efforts.
Environment: C++, android, ADB, DDMS, MAT, TraceView, Eclipse.

Consultant/Software Engineer
L & T Infotech - December 2010 to May 2011

This is project is all about the first nexus device launched by Google and Samsung with Android Ginger Bread running on it. The works involves testing, debugging and trouble shooting to make the device ready for deployment.
• Debugging and trouble shooting middleware issues.
• Involved in performance profiling and and also resolving memory corruption issues.
Environment: C++, android, ADB, DDMS, MAT.

Member Technical Staff
L & T Infotech   - San Diego, CA - January 2010 to November 2010

This project is all about development of the Qualcomm Mediaflo technology used to transmit the audio video and data to portable device like Personal Television (PTV) and other hand held devices. This technology is called FLO TV.
• Involved is preparing the design for TSC content player middleware side running on Brew platform.
• Development of the media player extension to support the play back of Time shifted content using Media Flo UI.
• Development of the TSC player UI (scrubber, scrub controller) in C++.
• Implemented the dragging, Tapping and hold on scrubber TSC player in C++.
Environment: C++, STL, Brew, QPST, QXDM, Brewlogger, Perforce, Visual studio.

Member Technical Staff
HCL Tech   - San Diego, CA - May 2008 to November 2009

This project is all about the development of the Music on Demand (MOD) application on brew Platform.
This product is consist of three different modules V cast , player engine and Library.
• Involved in the development of the library and play module in C/c++.
• Added background Music support for the application.

- Porting of the application to different Brew enabled devices.
- Worked on the v cast catalogue module and implemented Socket
- Bug fixing and trouble shooting customer reported issues.

Environment: C/C++, Brew, visual studio, QPST, QXDM.

Member Technical Staff

HCL Tech   -   Noida, Uttar Pradesh   -   March 2007 to April 2008

This Project is composition of eight related, but distinct applications including Album viewer, Image Picker, Audio Picker, Video Picker, Voice Notes, Camera, Camcorder and Media Player. These BREW applications tightly integrate with BREW OS interface layer.
- Implementation and coding of various features in album viewer, Audio Picker, file manager module in C.
- Testing various functionalities, debugging, trouble shooting issues reported y test team.
- Implemented the Media player module in C and brew platform.

Environment: C, Brew, QPST, QXDM, Perforce.

Software Engineer

Instance Software Solutions   -   Bangalore, Karnataka   -   May 2006 to January 2007

The driver was developed for embedded systems on proprietary RTOS like Vx-Works. The serial driver provides interface for serial communication between host and target systems. I/O data is transferred and received on serial port in interrupt-mode. Since the driver functions are installed in RTOS IO -systems, the applications program sends and receives data from serial port using RTOS I/O system calls.

- Involved in writing the driver for the UART and all I/O functionality in C and Vxworks Platform.

Environment: C, Linux, VxWorks, and GDB

Trainee Engineer

Instance Software Solutions   -   Bangalore, Karnataka   -   October 2005 to April 2006

This product was developed in two phases. One was for finding the shortest path between two nodes and other was for message passing. If two mobile networks want to communicate with each other, but they are not within the range of each other then they take help of another network between them which is within the range of both.
- Finding shortest distance between nodes using D-castra algorithm in C.
- Involved in implementing message passing and achieve multithreading in C and Linux.
Environment: C, Linux, GDB

EDUCATION

Bachelors in Electronics and Telecommunication & Engineering

Biju Patnaik University of Technology Rourkela - Raurkela, Orissa
2005

SKILLS

Software Development (9 years), C++ (6 years), C (5 years), Linux (4 years), Mobile android/Brew (4 years), Set Up Box (4 years), multi-threadind/Multi process (2 years)

ADDITIONAL INFORMATION

TECHNICAL SKILLS:

Languages: C, C++
Operating System: Embedded Linux, android, Brew, Vxworks (RTOS)
Debugging Tools: Valgrind, GDB, visual Studio, add2line, wireshark, tcpdump, QPST, QXDM, ADB, DDMS,
logcat, Memory analyzer Tool (MAT).
Standards / Protocols: TCP/IP, UDP, SNMP, and IGMP, TR69, HTTP
Database: MySql, Sqlite3.
GNU Tools: Automake, Autoconf
Version Control Tools: GIT, Perforce, SVN, Clearcase.
Tracking Tools: Jira, Rally, and Bugzilla.