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| * **Experience Summary** * 7+ years of Proven experience in Embedded C, C, C++, Linux, Linux Internal, and Linux Device Driver. * Good Exposure of Linux Internal. * Good Exposure of Embedded System and Telecom. * Good Exposure on Linux Platform, Linux 2.6.27(Ubuntu, CentOS). * Well-developed organizational and communication skills with strength in inter-personal relationships. * Designing the functional specification documents and Technical Design Documents. * Excellent team player with good communication and interpersonal skills.  |  |  | | --- | --- | | * Area | * Skills | | Programming Languages | Embedded C, C C++, STL, Data Structure, Linux, Linux Internal, Multithreading, System Programming. | | Operating Systems | Linux 2.6.27(Ubuntu, CentOS), Visual Studio, RTOS(Nucleus) | | Domain Knowledge | Embedded System and Telecom. | | Protocols | TCP/IP, UDP, Diameter. | | Version Control | Perforce, TFS | | Debugging Tools | Gdb, Kgdb, JTag | | Microcontroller | MC908JL16, ARM | |
| * **Work History**  |  |  |  | | --- | --- | --- | | **Duration** | **Organization** | **Role Played** | | March 2015 to till date | British Telecom, Sunbury,UK | Senior Software Engineer | | Nov 2013 to March 2015 | IGATE Global Pvt. Ltd., Bangalore | Senior Software Engineer | | Dec 2010 to Oct 2013 | Samsung R&D Bangalore | Senior Software Engineer | |

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| Project Experience |

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| Project | Integrated Trading System (Netrix). |
| Client | BT (UK). |
| Technical Environment | C, C++, STL, Visual Studio, Embedded Linux, Linux Internal, Networking and CENT OS. |
| Role | Senior Software Engineer |

**Description**

Integrated Trading System (ITS) is a High End Telephony System. It have three major components Turret, Switch and Admin. Turret is a hardware Telephone unit. It have modules like Line Bank, Control module, speaker module etc. It is getting used extensively by trading companies where multiple calls can be handled with various different requirements.

**Job Responsibilities:**

Requirements, Analysis and Implementation: Understanding the requirements.

1. Study and analysis of requirements.
2. Reproduction of requirement/issue on specific Turret.
3. Rough sketches of High Level design document.
4. Coding/Development in C/C++ on Linux platform as per requirements.
5. Verification of implemented code:
6. Make sure there should be no pieces of code untested.
7. Tests the hardware with developed code and verify the various scenarios/calls.
8. All negative and corner test cases verification.
9. Check-in of tested code in main stream.

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| Project | IMS P-CSCF Node Development. |
| Client | ITALTEL |
| Technical Environment | C, C++, SIP, Diameter, Networking and CENT OS. |
| Role | Senior Software Engineer |

**Description**

Objective of this requirement is to development of IMS P-CSCF node’s all functions and its implementations. Diameter is the sub-component of P-CSCF node with Rx and Rf interfaces. Diameter interface is responsible for Authorization, Authentication and Accounting (AAA) of a user. AAA is simply a process inside an application that filters information before granting any access of network services and features. Rx interface is dedicated for Authorization and Authentication whereas Rf interface is for charging/billing.

**Job Responsibilities:**

Requirements, Analysis and Implementation: Understanding the requirements and implementation of diameter features as per 3GPP docs and RFCs.

1. Study and analysis of 3GPP and RFCs as per requirements.
2. Rough sketches of High Level design document.
3. Coding in C/C++ on Linux platform as per requirements.
4. Verification of implemented code:
5. Make sure there should be no pieces of code untested.
6. All positive and corner test cases verification via pcaps and debug logs.
7. Development of SIPP scripts to test written code.
8. All negative and corner test cases verification.
9. Check-in of tested code in TFS server.

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| Project | TCP-IP bus connectivity with Dual IP stacks |
| Client | GM |
| Technical Environment | C/C++, Qt, Networking and Ubuntu OS. |
| Role | Senior Software Engineer |

**Description**

Fundamental objective of this requirement is to development TCP-IP bus connectivity with Dual IP stacks and Dual IP addresses on a single MAC.

**Job Responsibilities:**

Requirements and Analysis: Understanding the requirements of the client and act as a sole functional resource.

1. Requirement understanding document preparation.

1. High Level design document preparation.
2. Coding in Qt for TCP-IP bus connectivity.
3. Under Test Bench setup(All below are configured in Ubuntu except vth ):
4. DHCPv6 server-client configuration.
5. DHCPv4 server-client configuration.
6. IP Aliasing configuration for Dual IP stacks.
7. Shell-scripting for dual IP setup on single mac.
8. Micrel-switch configurations.
9. Configuration of Log-capturing mechanisms such as Wire shark, tcpdump.

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| Project | LTE Modem |
| Client | ATT & Verizon |
| Technical Environment | C/C++, ARM9, IMS, Multithreading, Nucleus (RTOS) |
| Role | Porting APIs, AP to CP Comm, UNIX domain socket Implementation |

**Description**

LTE Modem is a modem based on QUALCOMM chipset. IMS Stack is ported to the CMC222 Modem platform. In this architecture, the IMS lib is ported o the LTE Modem platform (PAL).

On the other hand, IMS Application and Manager part (IMS Framework) remains on AP side. This will help in following ways:

* The battery consumption will be reduced due to lesser AP side interactions.
* The Media quality will be greatly enhanced.

The IMS modules in AP and Modem will communicate using the already established path of SIPC and data communication. An IMS component will be sitting in the native part on AP to assist in this.

**Job Responsibilities:**

* Porting APIs related to OS.
* Thread Management.
* Worked on ARM architecture.
* Kernel memory management.
* Process Scheduling and Synchronization.
* Involved in AP to CP and vice versa.
* Interaction with client to discussion requirements.
* Unit Testing.
* Fix the Issues.

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| Project | NA GSM FEATURE PHONES |
| Client | ATT, TMO, Tracfone |
| Models | Rudy, Erica, Remington, Qool, Cacao Variants. |
| Role | File Viewer, Image Viewer, Image Editor, Voice Recognition and Media Explore using C/C++. |

**Description**

Worked on all kinds of files and images feature and involved on editing features of images as well. Voice recognition is a feature with which user can avail the particular kind of feature of phone via speaking. Media Explorer is referred as all media related features.

**Job Responsibilities:**

* Kernel area (Memory Management, Scheduling, Process Management etc.)
* Updated Make file.
* Feature enhancements.
* Knowledge transfer to new joiners.
* Impact Analysis and coding.
* Interaction with client to discuss requirements.
* Unit Testing.
* Fix the issues.

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| Project | NA CDMA Smart Phone |
| Client | ATT & Verizon. |
| Technical Environment | C, C++, Linux Kernel, RIL. |
| Role | IPv6 and IPSec Implementation, Socket Programming. |

**Description**

In Android kernel IPv6 is implemented with IPv4. IPSec, the protocol for IP network-layer encryption and authentication, is an integral part of the base protocol suite in IPv6; this is unlike IPv4, where it is optional (but usually implemented).

**Job Responsibilities:**

* Implemented IPv6 with IPv4.
* Analyzed Linux Kernel Defects, performance issues.
* Updated make file.
* Impact Analysis and coding.
* Involved in Unit Testing.
* Fix the Issues.

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| Project | IP Video Intercom |
| Client | Calsoft |
| Technical Environment | C, Linux, ARM7, DM365(Leopard Board), gdb. |
| Role | GPIO, PWM and USB Driver. |

**Description**

IP Video Intercom is developed for communication between House owner (Renter) and Guest who want to get permission for entry in the house. By the help of this project entry gate can be opened on the basis of owner’s desire. It supports video capture and streaming from Entry Units to Apartment units as well as two way audio conversations via an on-board microphone and speaker. One can make a call to an Apartment Block via Entry Units placed at the doors and the call can be answered by any of the Apartment units in that block. I was involved in development of GPIO driver and PWM driver.

**Job** **Responsibilities:**

* GPIO, PWM and USB Driver.
* ARM7 Processor.
* Involved in writing Software Requirements Specification.
* Impact Analysis and coding.
* Interaction with client to discussion requirements.
* Unit Testing.
* Fix the Issues.

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| Project | Vending Machine Controller |
| Client | Dlecta Foods Pvt. Ltd. |
| Technical Environment | C, CodeWarrior 5.2, MC908JL16. |
| Role | Developed modules like Display, LCD, Main, Timer and Utils etc Modules. |

**Description**

Vending Machines are used to dispense various products like Coffee, Snacks, and Cold Drink etc. when money is inserted into it.

This looks quite a simple operation but has a very complex logic behind it. It involves use of twelve precision timers and four counters apart from physical devices like display, solenoid and motor to deliver water and premixed tea/coffee/soup powder in exact quantity.

This has become possible because of the use of microcontrollers, which allow compact size, higher reliability, lower cost and multiple functionalities.

**Job** **Responsibilities:**

* Involved in writing Software Requirements Specification.
* Write software module required for performing required functionalities..
* Impact Analysis and coding.
* Interaction with client to discussion requirements.
* Unit Testing.
* Fix the Issues.

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| EDUCATION | | |
| Degree | College/University | Percentage |
| BE in E &C Engineering | RGPV Bhopal ,India | 71% |