**Ankit Kumar** House No. - C-27 A,

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**Experience Summary**

* A dynamic & result oriented professional with around **2.4 years** of rich experience in **Software Development**.
* Possess expertise of working on Telecommunication; proven skills in managing to work in sync with the

corporate set parameters for achieving business and individual goals.

* Possess **27 months of experience in protocol stack Development (in C language)** and Unit Testing of software’s required for **GSM and GPRS protocol architecture on Layer 2 (RLC/MAC).**
* Currently working for **Nokia Siemens** (at **NSN Offshore Development Center**)on **LTE Transport Platform** (Mobile Backhaul Network) in C++ which mainly deals with the traffic between eNB and EPC (Evolved Packet Core) in management plane of LTE which includes protocols like IPsec, HTTP, TCP/IP, and UDP and on **Fastpath** with **CaviumOcteon processor**. Also having knowledge of **LTE layer 2 protocols**.
* Workedextensively for **Nokia Siemens** (at **NSN Offshore Development Center**) as a Software Engineer (Development) on its Project PCU (Packet Control Unit, GPRS) forAricent Group. The PCU manages the radio interface for the GPRS and EDGE Network. It hosts the RLC/MAC layer and provide following functionality
  + - Transfer of RLC block.
    - Control the GPRS radio resources.
    - Segmentation and reassembly of LLC frame
    - PCU communicates with the BTS via Abis Interface.
    - PCU and BTS should be able to transmission on various channels. i.e PCH,PACCH
    - PCU communicates with the SGSN via Gb Interface
* Having good communication & analytical skills and excellent team player.
* Worked extensively on**BIOS, BOOT LOADER, BSP, DIAGNOSTICS, BLACK BOX, IPC.**
* An Honest, Sincere and Efficient hard worker, with the ability to meet deadlines, time frames, and very organized and Well Structured at work.

**Professional Qualification**

Bachelors of Technology in Information Technology from WBUT, India – 2006-2010.

**Technical Summary**

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| --- | --- |
| **SKILLS** |  |
| LANGUAGE | C, C++ |
| Protocols | RLC, MAC, TCP/IP |
| Technology | GSM, GPRS, EDGE, 3G, LTE |
| Expertise | Linux, RTOS, Data Structure and Algorithm, Operating System, Unix Shell programming, Inter Process Communication, Message Queues, Shared Memory, Semaphores, Socket Communication, Unix Signals, Debugging Tools GDB/Splint/Valgrind,wireshark, Shell Scripting, Device Adaptor, Device Driver. |
| Tools | Rational Clearcase, MS-Office, MS Excel, Source Insight, Challenger, Trace32, IDA, Nethawk, Ixia. |

**Professional Experience**

|  |  |
| --- | --- |
| **Company** | **Period** |
| Aricent Group | April 2011 – Till Date |

**SCHOLASTICS**

* B.TECH (Information Technology) from BCET, Durgapur in 2010 with 86%.
* Standard XII from D.A.V. Public School, Bokaro with 66.5%.
* X standard from D.A.V. High School with 69%
* **Accolades:**
* Have done project based training from GLOBSYN PRACTICE SCHOOL, Kolkata on J2EE. The project was on “ON-LINE Banking”.
* Project on Factors affecting adoption of m-Commerce and make available globally with data space provided by 0fees.net.
* Completed “Campus Connect Program” conducted by INFOSYS.

**TRAININGS ATTENDED**

* Received 8 weeks training (4-weeks technical and non-technical training & 4 weeks involved in real Project) conducted by Aricent Technologies (Holdings) Pvt. Ltd.
* Training in Embedded Systems Program at Aricent Technologies (Holdings) Pvt. Ltd.
* Role based trainings e.g. Development Languages and Tools, Quality.
* Domain Based Trainings e.g. GSM, GPRS, etc.
* Attended company based online training on LTE.

**Work Experience**

**Project #1: PCU2 Project : 24+ Months**

**Client: Nokia Siemens Networks**

**Team Size: 12**

**Scope:**Nokia PCU (Packet Control Unit), an integral part of GPRS architecture, involves development of software to provide the layer-2 functionality of the 2.5 GPRS Protocol Architecture, majorly RLC/MAC and Gb Interface.PCU2 is the plug-in-unit type component attached with BSC to handle GPRS data calls.

I am involved with new feature development and enhancement program of PCU at PQ processor module. Also, I am involved in crash debugging and other maintenance activities of PCU2 project deployed worldwide which provides an excellent opportunity to handle customer expectations and deliver results within the deadlines.

Development of a new feature related with automating the log collection procedure at PCU2 in order to further aid in the debugging of certain common problems reported by customer.

**Involved in development of blackbox phase 1 and 2 mentioned below and feature:-**

**1)**

**Title: Packet Control Unit – Black box Development (Phase 1 and Phase 2)**

**Team Size:** 2

**Duration:**  6 Months

Environment**:**Platform – OSE Linux \ Windows

Technology **:**GPRS/EGPRS

Language- C

**Description :** When PCU gets crashed then only stack dump and some ram log gets

collected at the customer end, in this feature a common framework is been designed so that a   
user can register the data for crash debugging, further onwards in case if crash appears then

that last value of the data registered will be available to a user for debugging purpose.

**Role & Responsibilities:**

1 – Understanding the PQ processor and platform software to develop BLACKBOX in PQ platform and designing the LLD and write the code and do unit testing for debugging purpose.

2)

**Title : BSC Event Triggered Symptom Data Collection**

**Team Size** **:** 6

**Duration :** 6 Months

Environment **:**Platform – OSE Linux \ Windows

Technology **:**GPRS/EGPRS

Language- C

**Description:**Featurewhich helps in providing quick and effective analysis regarding a problem to the

customer and toprovide the R&D with sufficient and detailed information for problem solving.

This feature will enable the user to collect information from the customer sites without much

complexity and assistance and in less time.

**Role & Responsibilities:**

1 - Understanding the modules of the IMSGW in order to implement this feature.

2- Designing the HLD, LLD and coding.

* Effectively mentored newly joined team members to start working on the project.

**Also involved in development of multiple CR’s (Change Request) from Nokia, Some of them are as below:-**

**1)**

**Title** : **Packet Control Unit – CR-073 (Handling hardware failure of DSP without doing Switchover)**

**Team Size** : 3

**Duration**: 1 Month(Completed)

**Environment** :Platform – OSE Linux \ Windows

**Technology**  : GPRS

**Language** : C

**Description** : PCU2 Card has 6 and 8 DSPs (Digital Signal Processors) and 1Power Quick processor according to card type, When the hardware of one DSP fails then the Alarm 3298 raised by the DX Software and the card is control switchover on another BCSU in the BSC. This CR’s purpose is to change the Alarm number to 3273 and whenever an Alarm 3273 is observed PCU2 will send the MCMU hot restart request to DX software and will start the ack timer. As the ack for the MCMU hot restart request received by PCU2, it will stop the ack timer and will send the CLEAR UNIT CALL message to CM process of PCU2. This CM module will restart some specific modules of PCU2, move the territory available on the failed DSP to others working DSPs and mark the failed DSP as in permanent failed state. In this case we need not to switchover the Unit.

**Role & Responsibilities:**

1- Designing the LLD and coding.

2- Analysis of test case logs, debugging and execution of the test case.

**2)**

**Title: Packet Control Unit – CR-071 (Forced to Controlled BCSU Switchover)**

**Team Size :** 2

**Duration:** 1 Month (Completed)

**Environment:**Platform – OSE Linux \ Windows

Technology – GPRS

Language- C

**Description**  : PCU2 Card has 6 and 8 DSPs (Digital Signal Processors) and 1Power Quick processor according to card type, When the hardware of one DSP fails then the Alarm 1178 followed by Alarm 2770 was raised by the DX Software and the card is forcefully switchoverd on the another BCSU in the BSC. The effect is that all the territory maintained at the old PCU2 was lost. This CR purpose is that to move all the territory on the card and raise an Alarm 3298 in case of doing forced Switchover.

**Role & Responsibilities:**

1 - Understanding the modules of the IMSGW related to territory and Software download.

2- Designing the LLD and coding.

3- Analysis of test case logs, debugging and execution of the test case

**Extra Activities**

* Coordinated various cultural events and fests at school & college level.
* Got SNAP AWARD for my hard work in IMSGW - For GPRS and EGPRS protocol stack development project in Aricent.
* Delivered Various Training at Aricent for BTS selection Algorithm, Resource Allocation and Reallocation, UL/DL TBF Establishment for GPRS and EGPRS.

**Personal Information**

* Date of Birth : 17/02/1988
* Father’s Name : Anil Kumar
* Sex : Male
* Marital Status : Single
* Passport No : k9101640
* Pan Card No : BEIPK3062F

Place: Gurgaon (Ankit Kumar)

Date: