**Akash Kumar**

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| E-mail: [akkumar2702@gmail.com](mailto:akkumar2702@gmail.com) | Contact No.: +91-8744009655 |

**Career Objective**

To achieve excellence in my field through hard work, research and professional skills to increase personal excellence along with the overall growth of the organization.

**Professional Summary**

* Having 4 and half years of working experience in research and development.
* Domain expertise in **CDR Telecom, DNS & Protocol parsing engineering.**
* Have expert knowledge of working in **C/C++ & core Java** programming languages.
* Have exposure in core engineering, designing end to end solutions and conducting unit testing.
* Have working experience in complete lifecycle of product development.
* Integrated application using **HSQL**, **Infinispan** and **Elastic search DB**.
* Have experience in following **Agile** and Scrum methodology for product development.

### Work Exposure

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| Jul 2017 to Till Date | Clear Trail Technologies, Noida | Senior Software Engineer |
| Oct 2015 to Jul 2017 | Clear Trail Technologies, Noida | Software Engineer |
| Jan 2014 to Oct 2015 | GlobalLogic India Limited, Noida | Associate Software Engineer |
| Jul 2013 to Jan 2014 | Nexus EngiConsults Pvt. Ltd., Noida | Assistant System Engineer |

**Professional Experience**

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| **Title** | **CDR Analyzer Service & Folder Manager Service (Nov 2016 – till date)** |
| **Technology** | Core java, HSQL and Elastic Search, IPCs |
| **Tools** | Java Spring STS, RabbitMQ, Tortoise SVN, JIRA and Agile, Directory Watcher |

**Description -** The project aimed at analyzing/investigating the CDR of mobile network. It provides investigator a series of operations to deduce meaningful information from the CDR and IPDR data, helping investigator solve the case. The system supports csv, xls, xlsx, txt and html file formats.

**Role – Feature Developer**

* Designed and Implemented the modules of CDR Analyzer i.e. CDR **configuration** **handler**, **Directory Monitoring**, **Meta Extractor** for various file formats like **csv, xls, xlsx, txt, html, mdb** and **accessdb** formats in batches.
* Implemented operations like **Target mobile** & **location analysis, Tower dump analysis, subscriber profiling, common contacts, common locations and probable suspect identification.**
* Designed and Implemented DB abstract class to integrate with various Database like **HSQL** and **elastic Search DB**.
* **Performance optimization** for processing 1 Million CDR records with elastic search DB.
* Scaling the solution to server based deployment to support multi user support with 100 Million data records.

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| **Title** | **WhatsApp Connection Analysis & Voice Extraction (Jul 2016 – Nov 2016)** |
| **Technology** | Core Java, Infinispan DB, IPCs |
| **Tools** | Java STS, Tortoise SVN, JIRA & Agile, RabbitMQ |

**Description –** The central idea behind the project is to identify connections between people by analyzing WhatsApp traffic without decrypting it. Then perform multiple analytics operations on that data to deduce intelligence.

**Role - Feature Developer**

* Designed & implemented the input Interface for handling the WhatsApp data using **RabbitMQ** IPC.
* Implemented the framework to process the network WhatsApp data in batches with **sequence handling** and storing the transaction records in **infinispan** DB.
* **Correlation algorithm** to find connection analysis using Whatsapp call data.

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| **Title** | **Lawful Interceptions & MO MT Correlations (Oct 2015 - Jul 2016)** |
| **Technology** | C/C++, Data structures, ACE |
| **Tools** | Wireshark, libpcap, tshark, ASN parsing, Valgrind and GDB, Shared memory IPC |
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**Description –** As a part of lawful interception, the objective of the product is to perform deep packet inspection of network data. It involves **reverse engineering**, **analysis, parsing network protocols** and writing engines for efficient data/meta extraction. It is a scalable and clustered engine.

**Role – Develop & Support**

* Added support for SMS in CAP parsing to improve MO and MT correlations.
* Parsing of BSSAP and RANAP protocol to extract meaningful information.

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| **Title** | **DNS Enhancements Feature (SBC-Rearch) (Jul 2014 – Sep 2015)** |
| **Technology** | C/C++, Data Structure & Algorithm |
| **Tools** | Yang Data Model, JIRA & Agile, Valgrind and GDB |

**Description -** The GENBAND Session Border Controller (SBC) brings security and interoperability to VoIP deployments. GENBAND SBC software offers a wide range of features and can be deployed in a wide variety of network configurations. DNS resides inside the SBC to resolve an FQDN present in incoming SIP request/message to one or more IP addresses.

**Role - Feature Developer**

* Implemented support for using additional section in DNS query resolution.
* Extended the support of caching in DNS cache functionality.
* Implemented yang model for DNS Enhancement to support SBC configuration.

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| **Title** | **Automatic Glue Dispenser (for DELPHI) (Jul 2013 – Jan 2014)** |
| **Technology** | Lab-View and NI devices and relays |

**Description -**This is a customized solution where glue is to be dispensed on the radiator manufactured by DELPHI. The image is captured through the NI hardware and the software process the image to mark the edge of the radiator tank and then glue is dispensed on the edge of tank.

**Role - Solution Support & Developer**

* Provided Hardware support on the production line for the Glue dispenser.
* Continuous software support to meet the production requirements.

**Professional Skill set**

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| **Programming languages** | C, C++, core Java, Basics of Perl & bash |
| **Programming concepts** | OOP, Design Patterns, Multithreading, Concurrency, Java Collections, Memory management, Exceptional Handling, shared memory IPC. |
| **Database skills** | Infinispan, HSQL, Elastic search, SQL |
| **Operating systems** | Windows, Linux |
| **IDE** | Microsoft Visual Studio 2010 and Java STS and Eclipse |
| **Analysis Tools** | Wireshark, JConsole, Microsoft Excel, HexEditor, visualVm, tshark |
| **Debugging Tools** | Valgrind, GDB |
| **Other Technologies** | RabbitMQ, FileZilla, Putty, Jenkins, |
| **Frameworks** | Apache POI and Java Spring |
| **Code Repository** | Tortoise SVN and GIT |

**Other Activities**

* Represented Delhi Region in **38 KVS National Games** in athletics at Hyderabad.
* Winners at Delhi Region in Football and twice in college.
* Awarded as **Star of the Quarter** for delivering quality work at fast pace.
* **Best trainee award** for VHDL training by Cepta Pvt Ltd.

**Academic Credentials**

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| B.Tech | [Krishna](http://www.hbti.ac.in/) Institute of Engineering & Technology, Ghaziabad | 75.37 | U.P.T.U. Lucknow |
| 12th standard | K.V No-2 AFS Hindan, Ghaziabad | 88.88 | CBSE |
| 10th standard | K.V No-2 AFS Hindan, Ghaziabad | 86.00 | CBSE |

**Personal Details**

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| Date of Birth | 27th Feb 1992 |
| Father’s Name | Mr. Anand Kumar |
| Nationality | Indian |
| Gender | Male (Single) |
| Address (Permanent) | H.N. 87, East Plan Basti, Burmamines, Jamshedpur, Jharkhand-831007 |
| Language known | English and Hindi |
| Passport Status | Available |

I assure that the above mentioned details are true to the best of my knowledge and belief.

**Place: Ghaziabad (Akash Kumar)**

**Date:**