

## **Amardeep Chandra Gupta**

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### **Objective:**

Intend to build a career that enables me to leverage my experience in the software development and allows for advancement in cloud, big data and data science domain utilizing design and coding skills to help achieve organization goal.

### **Synopsis:**

Principal Software Engineer and data architect having more than 14 years of experience in leading feature design of enterprise products and cloud applications; led the architecture of cloud infrastructure orchestration and SaaS upgrade monitoring that used to provide management and visibility in pods and proposed solution for number of critical problem in SaaS environment; Designed and developed solution and product feature in APM for monitoring enterprise IT environment; Architected the data analytics platform for log analytics, clustering, classification and association analysis using machine learning and statistics; awarded with the many prestigious 'Going Above & beyond and Star' awards' given to the top performing engineers based on total impact to product.

### **Skills Profile:**

**Languages:** Java, J2ee, C, Python

**Data Science Tools:** R, SparkML, scikit-learn, Numpy, SciPy, Pandas, Keras, TensorFlow

**Machine Learning:** Classification, Regression, Data agent, ANN, Deep learning

**Statistics:** Regression, Confidence Intervals,

**Cloud and Data platform:** Oracle Cloud, AWS Cassandra, Zookeeper, Hadoop, Salt Stack,

**Open Source Tools:** Spring, Apache Flume, Apache Lucene, Spark, Kafka

**Databases:** Oracle, MySQL

### **Special Skills:**

Data science pipeline and data lake

Data mining and Machine Learning Algorithms

Expertise in design and development of Data Analytics platform

Experience in ETL architecture and data pipeline development

Proficient in software analysis, design and modeling using Rational Rose Real Time and UML

Expertise in the design and analysis of Algorithms, Data Structures

Understanding of Map Reduce concept and distributed programming

Expertise in the web services tools development  
Expertise in design and development of Cloud and SaaS Product  
Familiarity with OOP techniques and Design Patterns  
Familiarity with Application Performance Management for Enterprise IT Management  
Familiarity with SOA, Web Services, JMS, JCA, MQ distributed-messaging  
Familiarity with Map Reduce, Apache Hadoop, Mahout, Zookeeper, Apache Flume and Solr  
Familiarity with Micro services and docker container

### **Other Skills:**

Very rapid grasp of new concepts, particularly mathematical and algorithmic  
Very rapid acquisition of programming languages  
Excellent problem-solving abilities  
Ability to correlate and apply a diverse range of skills and knowledge to a problem  
High degree of creativity and lateral thinking

### **Publications:**

I have authored whitepapers on technical topics like JavaScript Calculator, Setting up Maven Build environment.

Co-authored Disruptive Technologies- Mashups, a CA Technical journal article.

(<http://www.ca.com/us/lpg/ca-technology-exchange/mashups-by-example.aspx>)

### **Working Experience:**

#### **Principal Software Engineer (2014–Present), Oracle Corporation:**

Designing and developing orchestrations, management and automation framework for Oracle cloud platform. I am involved in leadership activity and architect for product development and roadmap.

**Features:** It provides features for orchestration and coordination tasks for distributed application in cloud infrastructure.

It's integrated with Oracle EM for management and monitoring capabilities. Disaster Recovery LCM task implementation for primary and standby data center, developing orchestration framework for task, Log and Upgrade Monitoring across data center for SaaS environments.

**Scope of work:** I am involved in designing and coding for core LCM module for Cloud environment. My responsibilities include extending distributed framework for LCM and orchestration within and across data centers for LCM. I have designed and coded the transport layer of orchestration framework, distributed coordination server using zookeeper, salt, and ZeroMQ. I am involved in development of distributed system and practicing technologies like Docker, Saltstack, Mcollective and Spring Rest.

**Tools, Languages, OS:** Eclipse, Java, Python, Linux.

**Technical Skills Practiced:** Salt framework, REST, Apache Zookeeper, Hadoop, Flume, Solr, Docker, Cucumber, and Oracle Cloud Platform etc.

**Research Projects:**

**Agent Deep Learning for APM analytics in Cloud:** {Python, Keras, TensorFlow}

- Created APM prediction system, optimized for sparse data, to forecast duration, error and performance parameter
- Build the model using deep learning
- Compared the model accuracy with RandomForest

**Fintech Research:** {Python: Sklearn, Numpy, Keras}

- Research on credit and profit scoring based on transaction data for lending application
- Credit Risk classification (probability of default) using neural network

**Senior Software Engineer (2007–2014) CA Technology:**

I was employed in **CA India Technologies Pvt. Ltd.** as Senior Software Development engineer and agent architect, have experience in design and development of CA APM Products. Part of my work was on predictive analytics in APM using machine learning to define baseline metrics and forecast.

**Platform:** Cross Platform

**Company Homepage:** <http://www.ca.com>

**Product:** Application Performance Monitor Solution, Consumer Experience Manager, Java Agent, APM SaaS

**Features:** Auto discovery of Queue Managers, dynamic transaction monitoring in Application Server, SQL Agent, Agent for monitoring spring framework and web services, Instrumentation for Java SE 7

**Scope of work:** I am involved in designing, coding and debugging of modules of Product. This also involves derivation and development of algorithms. Product is designed to monitor SOA environment and messaging component. I was also involved in research and development for monitoring components in data analytics and distributed platform.

End to end integration of logs for diagnostic is done using Apache flume, Solr and Hadoop HDFS data store.

**Coding** –JAVA,J2EE and C was used for making different core modules of the product. It involved the use of reflection, messaging API, message queues and multi-threading programming.

**Role:** Employed as a Sr. Software Engineer and agent architect. The role involved architecting and development of software projects pertaining to CA Wily APM (Application Performance Monitoring) products. This role involves in working the various stages of a software development cycle project by working with the cross-functional teams (Like QA, Build, etc) across the globe and ensuring that the project flow completes in time and with high quality.

**Tools, Languages, OS:** Eclipse, Java, Windows, Linux, Solaris etc.

**Technical Skills Practiced:** Web Sphere, Oracle, Big Data, Mahout, Apache Solr and Web Sphere MQ.

**Contribution:**

- Designed and developed features in APM for Customer Experience Manager
- Designed and developed feature called auto discovery of Queue Managers in Power pack of IBM MQ Series of APM and contributed in various Introscope extension and java\JavaScript calculator.
- Previously worked in product Brower Response Time Adapter (BRTA) of Introscope
- Designed and developed the Site minder Manager project for moving from shared memory communication to TCP/IP Communication
- Worked on various Unicenter Application Performance Management Products.
  - Unicenter Application Performance Management
  - Unicenter Management for Lotus Notes/Domino
  - Unicenter Management of Web Server

**Software Engineer (2006-2007), WESEE (Ministry of Defense):**

**Project Name:** CAIO-SNF

**Organization:** WESEE, Ministry of defense R K Puram New Delhi

**Position held:** Software Engineer

**Description:** CAIO-SNF (Computer-Aided Action Information Organization – SNF) is a computerized command in control system for P-17 ships. It is a multi-threaded application developed using Object-Oriented methodologies.

The system involves intensive use of various forms of IPC and Socket Communications.

**Scope of work:** As a team member I was involved in designing, coding and debugging and testing of various simulators and various modules, derivation and development of algorithms. Various tools were intensively used for different stages of development.

Requirement Analysis- requirements were captured using Rational Rose Requisite Pro.

Designing – Rational Rose for Real Time with UML as the specifying language.

Coding –VC++ was used for making different simulator to provide real time data to the system. JAVA and C++ in Visual Lynx was used to implement various modules in the system. It involved the use of IPCs such as sockets, message queues and multi-threading programming.

**Role:**

- Played Key role as principle developer and contributed in Architecture, Design and Development.
- Designed and developed a point-to-point messaging framework.
- I have implemented algorithms for data link computation and communication with the system providing fault tolerance.

**Technical Skills Practiced:** JAVA, C++, Rational Rose Test Real Time, and Lynx OS on PPC

**Associate Software Engineer (2005 – 2006), Abacus SoftTech Limited:**

**Project Details: Security System (TAMS) (Smart Card based System)**

**Description :** Time attendance and access control system as a system is combination of TAMS software, Smart Card Reader and communication server. TAMS system can be operated through Internet, Intranet or VPN of an organization. TAMS is a multi-Server based system which communicates on TCP/IP .In Software different Category, Group, Grade, Designation of Employees can be defined. Employee can do shift scheduling, by Group or by Department. Various Leave operations like Defining *Leave* Rules, Leave Opening Balance, Leave Closing Balance, Short Leave etc. can be done. Attendance Rules like Late Coming Rule, Early Departure Rule, over time, Compensation off etc. can also be defined.

**Role:** Development and Enhancement of the Time & Attendance Management System which is mainly used for time & attendance management with the help of smart Card and fingerprint biometrics system. Responsible for debugging and developing the code for the system and automated analysis of Image motion in monitoring and recognizing human facial expressions for attendance and access control .

**Smart card Personalization**

**Description:** Smart card personalization consisted of java card Applet and host application that provides communication between a host application and a smart card is done through Application Protocol Data Units (APDUs).

**Role :** Design and develop java card applet for writing data like personal information ,finger print templates, access zone information etc in Java card after receiving APDU command from host application.

**Technical Skills Practiced:** C, JAVA, J2EE, Oracle 9i, JCRE, and Apache Tomcat

**May 2004 -July 2004:**

**Place** : EscoSoft Technology (Escort Group), Faridabad

**Position held:** Project Trainee

**Description:** The work contains debugging and Enhancement centralized software for Escort i.e. QUALITY

ASSURANCE SYSTEM that check the quality of a tractor in different phases by inspectors. Guiding and Coordinating client for a project based on calculation of marks of entrance examination of Standard Chartered Bank and enhance various module of this project.

**Passport No.:** Z2567642

**Professional Qualification:**

MTech. Software Systems with specialization in Data Analytics, BITS Pilani

MCA from Graduate School of Business & Administration, U.P. Technical University

**Educational Qualifications:**

B.Sc. (PCM), 2001, PURVANCHAL UNIVERSITY JAUNPUR

Higher Secondary Education (12<sup>th</sup> Standard), 1998, HINDU INTER COLLEGE GHAZIPUR U.P Board

Secondary Education (10<sup>th</sup> Standard), 1996, HINDU INTER COLLEGE GHAZIPUR, U.P Board