# **Mani** Sr. Hadoop Developer

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## **PROFESSIONAL SUMMARY:**

- 8+ years of overall software development experience on Big Data Technologies, Hadoop Eco system and Java/J2EE Technologies with experience programming in Java, Scala, Python and SQL
- 4+ years of strong hands-on experience on Hadoop Ecosystem including **Spark, Map-Reduce, HIVE, Pig, HDFS, YARN, HBase, Oozie, Kafka, Sqoop, Flume**.
- Experience in **architecting**, **designing**, and building **distributed** software systems.
- Scala and Java, Created frameworks for processing data pipelines through Spark
- Wrote python scripts to parse XML documents and load the data in database.
- Deep knowledge of troubleshooting and tuning Spark applications and Hive scripts to achieve optimal performance.
- Used **Sqoop** to import data into HDFS / Hive from RDBMS and exporting data back to HDFS or HIVE from RDBMS.
- Worked with real-time data processing and streaming techniques using Spark streaming, Storm and Kafka.
- Experience developing **Kafka producers and Kafka Consumers** for streaming millions of events per second on streaming data
- Significant experience writing custom UDF's in Hive and custom Input Formats in MapReduce.
- Knowledge of job workflow scheduling and monitoring tools like **Oozie**.
- Strong experience **productionalizing** end to end data pipelines on hadoop platform.
- Expertise in Database Design, Creation and Management of Schemas, writing Stored Procedures,
   Functions, DDL and DML SQL queries and writing complex queries for Oracle
- Experience working with NoSQL database technologies, including MongoDB, Cassandra and HBase.
- Good experience is designing and implementing end to end Data Security and Governance within Hadoop Platform using **Kerberos**.
- Strong experience with **UNIX shell scripts** and commands.
- Experience in using various Hadoop Distributions like Cloudera, Hortonworks and Amazon EMR.
- Strong hands-on development experience with Java, J2EE (Servlets, JSP, Java Beans, EJB, JDBC, JMS, Web Services) and related technologies.
- Work with the **team** to help understand **requirements**, evaluate new features, architecture and help **drive decisions**.
- Excellent interpersonal, communication, problem solving and analytical skills with ability to make independent decisions
- Experience successfully delivering applications using **agile** methodologies including extreme programming, **SCRUM** and Test-Driven Development (**TDD**).
- Experience in **Object Oriented Analysis, Design, and Programming** of distributed web-based applications.
- Extensive experience in developing standalone **multithreaded** applications.

- Configured and developed web applications in Spring and employed spring MVC architecture and Inversion of Control.
- Experience in building, deploying and integrating applications in Application Servers with ANT,
   Maven and Gradle.
- Significant application development experience with REST Web Services, SOAP, WSDL, and XML.

# **TECHNICAL SKILLS:**

Big Data	Hadoop, HDFS, Map Reduce, Hive, Pig, HBase, Impala, Sqoop, Flume,
Technologies	NoSQL (HBase, Cassandra), Spark, Kafka, Zookeeper, Oozie, Hue,
	Cloudera Manager, Amazon AWS, Hortonwork clusters
Java/J2EE &	J2EE, JMS, JSF, JDBC, Servlets, HTML, CSS, XML, XHTML, AJAX, Angular
Web	JS, JavaScript
	JS, JavaScript
Technologies	
Languages	C, C++, Core Java, Shell Scripting, PL/SQL, Python, Pig Latin
Scripting	JavaScript and UNIX Shell Scripting, Python
Languages	
Operating	Windows, Linux and Unix
systems	
DBMS /	Oracle, Talend ETL, Microsoft SQL Server 2012/2008, MySQL, DB2 and
RDBMS	NoSQL, Teradata SQL, MongoDB, Cassandra, HBase
IDE and Build	Eclipse, NetBeans, MS Visual Studio, Ant, Maven, JIRA, Confluence
Tools	
Version	Git, SVN, CVS
Control	
Web Services	RESTful, SOAP
Web Servers	Web Logic, Web Sphere, Apache Tomcat,

## **PROFESSIONAL EXPERIENCE:**

Client : TMNAS Sep 2016 – Present

Location : Bala Cynwyd, PA
Role : Sr. Hadoop Developer

<u>Project Description:</u> TMNA offers the security of nearby expertise, enhanced by the diversity and power of one of the world's most respected insurance groups. Tokio Marine's companies offer access to leading commercial insurance solutions spanning the property and casualty landscape including professional liability, workers' compensation and property coverage. The project deals with analyzing clickstream data of users who are visiting the company websites and applications to derive useful insights that help in optimizing future promotions and advertising.

### Responsibilities:

- Involved in story-driven agile development methodology and actively participated in daily scrum meetings.
- Ingested terabytes of click stream data from external systems like FTP Servers and S3 buckets into HDFS using custom Input Adaptors.
- Implemented end-to-end pipelines for performing user behavioral analytics to identify user-browsing patterns and provide rich experience and personalization to the visitors.
- Developed **Kafka producers** for streaming real-time clickstream events from external Rest services into topics.
- Used HDFS File System API to connect to FTP Server and HDFS. S3 AWS SDK for connecting to S3 buckets.
- Written Scala based **Spark applications** for performing various data transformations, denormalization, and other custom processing.
- Implemented data pipeline using **Spark**, **Hive**, **Sqoop** and **Kafka** to ingest customer behavioral data into Hadoop platform to perform user behavioral analytics.
- Created a multi-threaded Java application running on edge node for pulling the raw clickstream data from **FTP servers** and **AWS S3** buckets.
- Developed Spark streaming jobs using Scala for real time processing.
- Involved in creating external **Hive tables** from the files stored in the HDFS.
- Optimized the Hive tables utilizing improvement techniques like partitions and bucketing to give better execution Hive QL queries.
- Used **Spark-SQL** to read data from hive tables, and perform various transformations like changing date format and breaking complex columns.
- Wrote spark application to load the transformed data back into the Hive tables using parquet format.
- Used **Oozie** Scheduler system to automate the pipeline workflow to exact data on a timely manner.
- Implemented installation and configuration of multi-node cluster on the cloud using **Amazon Web Services (AWS)** on **EC2**.
- Worked on data visualization and analytics with research scientist and business stake holders.

**Environment**: Hadoop 2.x, Spark, Scala, Hive, Pig, Sqoop, Oozie, Kafka, Cloudera Manager, Storm, ZooKeeper, HBase, Impala, YARN, Cassandra, JIRA, MySQL, Kerberos, Amazon AWS, Shell Scripting, SBT, Git, Maven.

Client : Davita Inc Jan 2015 - Sep 2016

Location : Nashville, Tennessee
Role : Sr.Hadoop Developer

<u>Project Description:</u> Davita is one of the largest kidney dialysis companies in world. The idea of the project is to ingest data from different multiple sources to Hadoop Data Lake, perform transformations on it according to business requirements and exporting the data to external systems. The system is a scalable BI platform that can adapt to the speed of the business by providing relevant, accessible, timely, connected, and accurate data.

### Responsibilities:

- Involved in gathering and analyzing business requirements and designing Data Lake as per the requirements.
- Built distributed, scalable, and reliable data pipelines that ingest and process data at scale using **Hive** and **MapReduce**.
- Developed MapReduce jobs in Java for cleansing the data and preprocessing.
- Loaded transactional data from Teradata using Sqoop and create Hive Tables.
- Extensively used **Sqoop** for efficiently transferring bulk data between HDFS and relational databases.
- Worked on automation of delta feeds from **Teradata** using **Sqoop** and from **FTP Servers to Hive**.
- Worked on various performance optimizations like using distributed cache for small datasets,
   Partition, Bucketing in hive and Map Side joins.
- Created components like Hive UDFs for missing functionality in HIVE for analytics.
- Used IMPALA to analyze the data present in Hive tables.
- Handled Avro and JSON data in Hive using Hive SerDe.
- Worked with different compression codecs like GZIP, SNAPPY and BZIP2 in MapReduce, Pig and Hive for better performance.
- Analyzed the data by performing the Hive queries using Hive QL to study the customer behavior.
- Wrote **python** scripts to parse XML documents and load the data in database.
- Generate auto mails by using **Python** scripts.
- Implemented the recurring workflows using Oozie to automate the scheduling flow.
- Worked with application teams to install OS level updates and version upgrades for Hadoop cluster environments.
- Participated in design and code reviews.

<u>Environment</u>: HDFS, Hadoop, Pig, Hive, HBase, Sqoop, Talend, Flume, Map Reduce, Podium Data, Oozie, Java 6/7, Oracle 10g, YARN, UNIX Shell Scripting, SOAP, REST services, Oracle 10g, Maven, Agile Methodology, JIRA.

Client : NASBA Aug 2012 - Dec 2014

Location : Nashville, TN
Role : Hadoop Developer

<u>Project Description:</u> National Association of State Boards of Accountancy enhances the effectiveness and advance the common interests of the Boards of Accountancy. Existing ETL platform is overloaded with data coming from variety of sources and as data is growing day by day, it is not able to perform well and cost of managing the Relational database servers are going up. So, the data is migrated from multiple sources to Hadoop Data Lake and transformations are performed on it according to business requirements and the processed data is exported to external systems.

#### **Responsibilities:**

 Analysed business requirements and created/updated Software Requirements and design documents

- Imported the data from relational databases to Hadoop cluster by using Sqoop.
- Provided batch processing solution to certain unstructured and large volume of data by using Hadoop Map Reduce framework.
- Developed data pipelines using **Hive scripts** to **transform** data from **Teradata**, **DB2** data sources. These pipelines had customized **UDF'S** to extend the ETL functionality.
- Developed UDF for converting data from Hive table to JSON format as per client requirement.
- Involved in creating tables in **Hive** and writing scripts and queries to load data into **Hive** tables from HDFS.
- Implemented dynamic partitioning and Bucketing in Hive as part of performance tuning.
- Created custom **UDF**'s in **Pig** and **Hive**.
- Performed various **transformations** on data like changing date patterns, converting to other time zones etc.
- Designed and developed **PIG Latin** Scripts to process data in a batch to perform trend analysis.
- Automated Sqoop, hive and pig jobs using Oozie scheduling.
- Storing, processing and analyzing huge data-set for getting valuable insights from them.
- Created various aggregated datasets for easy and faster reporting using Tableau.

**Environment**: HDFS, Map Reduce, Hive, Sqoop, Pig, HBase, Oozie, CDH distribution, Java, Eclipse, Shell Scripts, Tableau, Windows, Linux.

Client : Copart Inc Oct 2010 - Aug 2012

Location : Dallas, TX
Role : Java Developer

<u>Project Description:</u> Copart makes it easy for Members to find, bid and win the vehicles that they are looking for. Members can choose from classics, early and late model cars and trucks, industrial vehicles and more. These internal applications are used for content management through which users can request a new site, which is used to store their project related documents.

#### **Responsibilities:**

- Developed the J2EE application based on the Service Oriented Architecture by employing SOAP and other tools for data exchanges and updates.
- Worked in all the modules of the application which involved front-end presentation logic developed using Spring MVC, JSP, JSTL and JavaScript, Business objects developed using POJOs
  and data access layer using Hibernate framework.
- Designed the GUI of the application using JavaScript, HTML, CSS, Servlets, and JSP.
- Involved in writing AJAX scripts for the requests to process quickly.
- Used **Dependency Injection** feature and AOP features of **Spring framework** to handle exceptions.
- Involved in writing Hibernate Query Language (HQL) for persistence layer.
- Implemented persistence layer using **Hibernate** that uses the **POJOs** to represent the persistence database.
- Used JDBC to connect to backend databases, Oracle and SQL Server 2005.

- Proficient in writing SQL queries, stored procedures for multiple databases, Oracle and SQL Server.
- Wrote backend jobs based on Core Java & Oracle Data Base to be run daily/weekly.
- Used Restful API and SOAP web services for internal and external consumption.
- Used Core Java concepts like Collections, Garbage Collection, Multithreading, OOPs concepts and APIs to do encryption and compression of incoming request to provide security.
- Written and implemented test scripts to support Test driven development (TDD) and continuous integration.

**Environment**: Java, JSP, HTML, CSS, Ubuntu Operating System, JavaScript, AJAX, Servlets, Struts, Hibernate, EJB (Session Beans), Log4J, WebSphere, JNDI, Oracle, Windows XP, LINUX, ANT, Eclipse.

Client : Aricent Nov 2008 - Sep 2010

Location : Hyderabad, India Role : Java Developer

<u>Project Description:</u> Aricent is a global design and engineering company innovating in the digital era. help the world's leading companies solve their most important business and technology innovation challenges - from Customer to Chip. I have worked on developing the Aricent internal applications to automate the business process, store the documents. These internal applications are used for content management through which users can request a new site, which is used to store their project related documents.

#### Responsibilities:

- Analyzed user requirements and created Software Requirements and design documents
- Responsible for GUI development using Java, JSP, Struts
- Database design and development
- Created and modified existing database scripts, Tables, Stored Procedures, and Triggers
- Used XML functions, Cursors, Mail and Utility packages for Advanced search functionality
- Created data correction and manipulation scripts for Production
- Used JAXB for marshalling and un-marshalling of the data
- Created JUnit tests for the service layer
- Support for Production issues
- Attending the review meetings for scheduling, implementation and resolving issues in software development cycle

**Environment:** Java, Struts, Java, Jsp, Servlets, JQuery, Ajax, XML, XSLT, JAXB, FOP, JBoss, Weblogic, Tomcat, SQL server 2005 and MyEclipse

# **EDUCATION:**

Bachelor of Technology in Computer Science from National Institute of Technology, Rourkela.