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Sai Nalikala

Bgc63449@gmail.com

512-215-4455

**PROFESSIONAL SUMMARY**

* Over 7 Years of IT experience among which 5+ years with excellent knowledge on **Cassandra and MongoDB Administration (NoSQL)**.
* Good experience in **Designing, Capacity Planning, Administration, Installation, Implementation, Configuring, Troubleshooting, Performance tuning** of **Cassandra** and **MongoDB**
* Superior knowledge on **Cassandra database architecture** with better understanding of read and writes processes including **SSTable**, **Mem-table** and **Commit log**.
* Experience in **Data Modeling** in **Cassandra** and **MongoDB** along with managing and scheduling of data **backup** and **restore** operations.
* Used **Chef** cookbooks for automating the installation process.
* Upgraded **MongoDB** from **3.4 to 3.6** with no downtime using **opsmanager-3.6.2**.
* Upgrade **Cassandra** from **4.8.5 to 5.1.7** with no downtime to achieve **incremental** repairs and to use LDAP with advanced features.
* Good Knowledge on communication protocols including **Gossip protocol** and **Snitch Protocol**.
* Good Understanding of **Distributed Systems** and **Parallel Processing** architecture.
* Excellent knowledge on **CQL** (Cassandra Query Language) and **Mongo Shell** for obtaining data.
* Experience in installing **multi-data center** and **multi-rack Cassandra cluster**.
* Experience in managing and monitoring **Cassandra Cluster** using **opsCenter**.
* Experience in managing and monitoring **MongoDB** **replica set** using **opsManager**.
* Excellent knowledge on **Size** - **Tiered** and **leveled** compaction strategies.
* Excellent Knowledge in **WiredTiger** and **MMAPv1** storage engines.
* Involved in designing various stages of migrating data from **RDBMS** to **Cassandra** and **MongoDB.**
* Experience in provisioning and managing multi-data center Cassandra cluster on cloud environments like **Amazon web Services** and **Azure**.

**TECHNICAL SKILLS**

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| **Datastax** **NoSQL Databases** **Languages** | Cassandra – 4.8.5, 4.8.16, 5.0.14 and 5.1.7 & Solr – 4.8.5, 4.8.16, 5.0.14 and 5.1.7Apache-Cassandra 3.7 and 2.1.14, MongoDB-3.2, 3.4 and 3.6Ruby, Java |
| **Cluster Management Tools** | OpsCenter-5.2.4 and 6.1.2, Opsmanager-3.4.8, 3.4.11, 3.6.3 and 4.0.4 |
| **Server Automation Tools** | Chef, Docker and Kubernetes |
| **Relational Databases** | Oracle, Microsoft SQL Server, MySQL |
| **Version Control****Monitoring Tools** | Git, SvnZabbix, Elastic Search |
| **Operating Systems** | Linux (Red Hat, CentOS, Ubuntu), Windows |
| **IDE** | Eclipse, SequelPro, Dbeaver, MongoDB Compass, Robo3T, Studio 3T |
| **Bug Tracking Tools****Methodologies** | Bugzilla, AirBrake, JiraAgile, Waterfall |

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**PROFESSIONAL EXPERIENCE**

 **Motorola Solutions, Schaumburg, IL Aug 2019 – Till date
 Cassandra Consultant**

**Responsibilities:**

* Designing, Capacity Planning and implementing multi-rack Cassandra cluster and MongoDB replica set including data modeling for various projects.
* Installation, configuration, administration and monitoring of multi-datacenter Cassandra cluster, MongoDB replica Set and multi-shard cluster
* Managing and maintaining MongoDB replica set and Cassandra cluster, JVM tuning, Cassandra tuning and environment tuning to improve performance.
* Automating deployment of MongoDB and Cassandra environments using chef.
* Configuring high availability using geographical MongoDB replica sets across multi datacenters.
* Collaborated with developers for choosing right compaction strategies and consistency levels based on business use cases.
* Scheduling repair, weekly backups, database restores in different environments.
* Data migration between datacenters and parsing logs to elastic search to have UI interface.
* Implemented Adding, Removing and Decommissioning of nodes to existing Cassandra cluster.
* Implemented client to server 2way SSL encryption and LDAP for MongoDB and Cassandra for authentication and authorization.
* Excellent knowledge on database security and implementation of auditing.
* Implemented LVM snapshots to backup MongoDB and Cassandra.
* Implemented read preferences in MongoDB replica Set.
* Implemented read and write consistency based on business use case for Cassandra cluster.
* Experience in troubleshooting chunk migrations, splitting and balancing across cluster.
* Good knowledge in MongoDB and Cassandra administrative commands and shell scripting to automate jobs.

**Technologies:** DatastaxCassandra & Solr – 5.1.7, MongoDB-3.6.5, Opsmanager-3.6.5, Chef, Ruby, Microsoft Azure, OpsCenter-6.1.2, Nodetool, CQLSH, Dbeaver, MongoShell, MongoDB compass, Studio3T

 **PowerSchool LLC, Folsom, CA Mar 2018 – Aug 2019**

**Cassandra Consultant
Responsibilities:**

* Involved in designing, Capacity Planning and implementing multi-rack Cassandra cluster including data modeling and HA MongoDB replicaSet.
* Implemented migration from internal NoSql Sherpa database to amazon Dynamo DB while migrating to amazon web services.
* Ruby Scripts to migrate data to Dynamo DB from Sherpa. Scripts to parse Json data to store it in Dynamo DB.
* Migrated MongoDB from MMAPV1 to Wired Tiger storage engine as part of 3.0 upgrade.
* Good knowledge on MongoDB concepts such as locking, indexes, sharding and replication.
* Implemented write concern majority to avoid data loss during system failures.
* Worked on creating various types of indexes on different collections to get good performance.
* Installed, configured, administered and monitored multi-datacenter Cassandra cluster.
* Administering and monitoring the cluster-using node tool utility, DataStax opsCenter.
* Automated and deployed Cassandra environments using chef recipes.
* Configured internode communication between Cassandra nodes and client using SSL encryption.
* Involved in data modeling design for various use cases. Analyzed Conceptual model and application workflow of the system that is being built.
* Actively involved during data modeling by helping developer’s team while preparing chebotko diagrams for logical and physical data models during the phase of data modeling.
* Performed Backup and recovery operations for MongoDB and Cassandra.
* Scheduled repair and cleanup process in production environment.

**Technologies:** Cassandra, Dynamo DB, Sherpa, Oracle, Ruby, OpsCenter, Nodetool, SSH, Stress tool, JMeter, Java driver, Sqoop, Chef, EC2, S3, Mobster.

 **Solar Turbines, San Diego, CA June 2016 – Feb 2018**

 **Cassandra Consultant**

 **Responsibilities:**

* Involved in capacity planning and requirement gathering for multi data center (four) Cassandra cluster.
* Worked on creating and maintaining data model for Cassandra applications from Oracle data model.
* Designed, implemented and administered multi data center Cassandra clusters based on the knowledge of architecture.
* Worked on adding and deleting of the nodes along with monitoring of the existing Cassandra cluster.
* Optimized Cassandra cluster using performance tuning, which is to make changes in Cassandra configuration file, JVM parameters and Linux OS configurations.
* During upgrading of Cassandra Cluster, performed backup and recovery operations.
* Worked with developers for choosing right compaction strategies and consistency levels.
* Administered and maintained multi rack Cassandra cluster using OpsCenter.
* Based on the use case implemented consistency level for reads and writes.
* Automated the process of installation and configuration of nodes using puppet.
* Evaluated, benchmarked and tuned data model by running endurance tests using JMeter and Cassandra Stress Tool.
* Used Cassandra node tool to manage Cassandra cluster.
* Involved in Data modeling design for various business use cases.
* Performed importing data from various sources to the Cassandra cluster using Java/Python APIs or Sqoop.

**Technologies:** Cassandra, Oracle, OpsCenter, Nodetool, Stress tool, JMeter, Sqoop, Puppet.

 **UX Solutions, Hyderabad, India Sep 2014 – Nov 2015
 Linux Administrator**

 **Responsibilities:**

* Installing, maintaining the Linux servers and updating packages.
* Installed RedHat using Pre-Execution boot and kick-start method on multiple servers.
* Monitoring system metrics and logs for any problems.
* Maintaining the MySQL Server and Authentication to required users.
* Creating and managing logical volumes and running cron-tab to back up data.
* Adding, removing and updating user account information, resetting passwords, etc.
* Provide Tier III/other support per request from various constituencies. Investigate and troubleshoot issues.
* Repair and recover from hardware or software failures. Coordinate and communicate with impacted constituencies.
* Perform daily backup operations, ensuring all required file systems and system data are successfully backed up to the appropriate media, recovery tapes or disks are created, and media is recycled and sent off site as necessary.
* Perform regular file archival and purge based on requirements.
* Create, change and delete user accounts based on the request.

**Technologies:** Linux (Red Hat, Centos, Ubuntu), CRON, ServiceNow

**EDUCATION:**

Wilmington University, New Castle, Delaware

**Master’s in Information Systems and Web Design**

Loyola Academy, Hyderabad, India

**Bachelor of Commerce with Computer Applications**