Ranjith Kumar D

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| **Education** |  | | |
| **University of Central Missouri** |  | **Apr 2021 - Sep 2022** | |
| *Master of Computer Science* |  | *Warrensburg, MO* | |
| **ICFAI Business School** |  | **May. 2017 - Mar 2019** | |
| *Master of Business Administration* |  | *Hyderabad, India* | |
|  |  |  | |
| **Relevant Coursework** |  |  | |
| * Data Structures *•* Data Visualization | * Internet Technology | * Financial Analytics | |
| * Business Analytics *•* Database Management | * Systems Programming | * Advanced Excel | |
| * Big Data *•* Artificial Intelligence | * Computer Architecture | * Machine Learning | |
| PROFESSIONAL SUMMARY:  * A Data Engineer and Data Scientist with a solid background in Computer Science with **3.5 years of Experience** working in a fast - paced * Data-driven setting fostering collaborations to maintain the edge necessary for delivering products and services built on innovative technologies like Artificial Intelligence and Machine Learning. * Natural knack for diving deep into a problem to find a creative solution with a roll-up-your-sleeve attitude. * Dynamic and motivated IT professional with around 5+ years of experience as a Big Data Engineer with expertise in designing data-intensive applications using Hadoop * Ecosystem, Big Data Analytical, **Cloud Data Engineering**, **Data Warehouse** / Data Mart, Data Visualization, Reporting, and Data Quality solutions. * Strong experience working with Bigdata Hadoop ecosystem components like **HDFS**, **Map Reduce**, **Spark**, **HBase**, **Oozie**, **Hive**, **Sqoop**, **Pig**, **Flume**, **Kafka**, and **Airflow**. * Expertise in developing production-ready Spark applications utilizing **Spark**-**Core**, **Data Frames**, **Spark-SQL, Spark-ML and Spark-Streaming APIs** * Good experience working with **AWS** **Cloud** services like **S3**, **EMR**, **Lambda**, **Redshift, Athena, Glue** etc., * Good understanding of **NoSQL** Databases and hands-on work experience in writing applications on No SQL databases like **Cassandra** and **Mongo** **DB**. * Familiar with data architecture, including data ingestion pipeline design, Hadoop information architecture, **data modeling** and **data mining**, **machine learning** and advanced data processing. Experience optimizing ETL workflows. * Experienced at creating data regression models, using predictive data modeling, and analyzing data mining algorithms to deliver insights and implement action-oriented * solutions to complex business problems * Using machine learning techniques supervised, unsupervised, reinforcement learning and understand the requirement & design for AI/ML use cases * Strong hands and exposure on experience in Python, (Frameworks/libs: NumPy, SciPy, Pandas, NumPy, Matplotlib/Plotly, scikit-learn, Statsmodels) * Proficient in Python Scripting and worked in stats function with **NumPy**, **visualization** using **Matplotlib** and **Pandas** for organizing data. * Knowledge in installation, configuration, supporting and managing **Hadoop Clusters** using Apache, Cloudera (CDH3, CDH4) distributions and Amazon web services (**AWS**). * In-depth understanding/knowledge of Hadoop Architecture and various components such as HDFS, MapReduce Programming Paradigm, High Availability and YARN architecture. * Experienced in working with **Amazon Web Services (AWS)** using **EC2** for computing and **S3** as storage. * Capable of using AWS utilities such as **EMR**, **S3** and cloud watch to run and monitor Hadoop and spark jobs on Amazon Web Services (AWS). * Strong knowledge in working with Amazon **EC2** to provide a complete solution for computing, **query processing**, and storage across a wide range of applications.  Technical Skills  |  |  | | --- | --- | | Hadoop Components | HDFS, Hue, MapReduce, Hive, Sqoop, Impala, Zookeeper, Flume | | Spark Components | Spark RDD, Data Frames, Spark SQL, PySpark, Spark Streaming, Spark ML | | Databases | Oracle, Teradata, Microsoft SQL Server, MySQL. | | Programming Languages | Java, Python, Scala. | | Cloud Services | AWS S3, EMR, Redshift, Glue, Lambda, Step Functions, Athena, GCP Dataproc, Big Query, Nifi, Snowflake | | IDE | Eclipse, IntelliJ IDEA, PyCharm | | NoSQL Databases | HBase, Cassandra, MongoDB. | | Release Management Tools | Jenkins, Maven, SBT, GitHub, Jira | | Development methodologies | Agile/Scrum |  Experience | | | |  | |  |
| **Capital One** |  | **May. 2022 – Present** | |
| *Big Data AWS Engineer* |  | *Virginia, USA* | |

* Design and maintain well-structured relational database Schemes. Create automated **ETL pipelines** for a variety of raw manufacturing data sources. Research and develop new data storage architectures for growing data volumes
* Designing a resilient framework using **Amazon Web Services**, which involves reading/streaming data from the producer/Source through the **Apache Kafka** process to ingest the data to Client specific cloud storage location (**S3**). House, data validation tool is integrated to take care of data quality checks. Setting up notification service through **Amazon SNS (Simple Notification Service),** which in turn triggers **AWS Lambda** function to pick the data from one **S3** to a Centralized S3 location.
* The data load framework is being used to load the data from **S3 location** to the Cloud **Snowflake Data warehouse**. Ensure appropriate services and effective design in a cost-effective method.
* Intake Business managers/product owner request their strategies and future vision and turn those business requirements into **data visualization** products using the **Tableau** Business Intelligence Data **Visualization** tool.
* Created DataStage jobs using different stages like Transformer, **Aggregator, Sort, Join, Merge, Lookup, Data Set, Funnel, Remove Duplicates, Copy, Modify, and Filter. Change Data Capture, Change Apply, Sample, Surrogate Key, Column Generator, Row Generator Etc.,**
* Expertise in Creating, Debugging, Scheduling and Monitoring jobs using **Airflow** for ETL batch processing to load into **Snowflake** for analytical processes.
* Worked in building **ETL pipeline** for data ingestion, data transformation, and data validation on cloud service AWS, working along with data steward under data compliance.
* Worked on scheduling all jobs using **Airflow** scripts using python and added different tasks to **DAG** and **LAMBDA**.
* Experience in Developing **Spark applications using Spark - SQL** in **Databricks** or data extraction, **transformation**, and **aggregation** from multiple file formats for analyzing & transforming the data to uncover insights into the customer usage patterns.
* Performed data storage on **AWS S3**, and defined **MapReduce** jobs in multi-node Hadoop clusters on AWS **EMR** and **EC2**
* Developed ETL pipelines to ingest data to **AWS RDS** for data processing, data analysis using AWS Glue and **AWS Athena**, and **data warehousing** and visualization using **AWS Redshift and AWS Quick Sight**
* Upkeep AWS Kinesis pipelines to process near real-time server logs, analyze data with **AWS Elasticsearch** and populate data in **AWS DynamoDB** using **AWS Lambda**
* Developed and implemented ETL pipelines using Python, SQL, Spark and PySpark to ingest data and updates to relevant databases

**University of Central Missouri May. 2021 – Jun 2022**

*Power BI Developer Reality Studio, UCMO*

* Extensive data cleansing and analysis, using pivot tables, formulas (v-lookup and others), **data validation**, conditional formatting, and **graph** and **chart** manipulation. Facilitate program and project meetings. Prepare and facilitate weekly
* PMO meetings; captured meeting decisions and content into Excel-based tracking logs.
* Involved in creating **MDX**, **DAX**, Cubes and Tabular models using **SQL Analysis Services** (SSAS). Used different types of **visualization** (**Stacked bar Chart, Clustered bar Chart, Scatter Chart, Pie Chart, Donut Chart, Line & Clustered Column Chart, Map, Slicer** etc.) in Power BI according to the requirements.
* Conduct quality assurance activities regarding data migration and folder permissions. Adhere to and communicate Records Management procedures to customers. Perform SharePoint administration for the team.
* As Dashboard Developer, Primary activities included designing a technology roadmap for Power BI; product installation and implementation development of insightful dashboards; serving as **SME** point of contact for Power BI and delivery of solutions adhering to BI industry best practices
* Implemented metrics, filters, reports, and dashboards and created advanced chart types, using calculations to manipulate the data and enable user-driven parameters for visualizations and drilled down the level of detail using sets

# Yashitha Software Inc Dec 2019 – Feb 2021

*Data Engineer Hyderabad, India*

* Collaborate with ML Engineers and Data Scientist to build data and model pipelines and help in running machine learning tests and experiments
* Experience with Statistical Modeling, Data Extraction, Data cleaning, Data screening, Data Exploration and Data Visualization of structured and unstructured datasets
* Ability to implement large scale Deep Learning and Machine Learning algorithms to deliver resourceful insights and inferences
* Using machine learning techniques supervised, unsupervised, reinforcement learning as applied to the travel, transport, or logistics industry
* Collaborates with business and team members to understand company needs, employs predictive modeling, text mining, and forecasting techniques, Keeps up-to-date
* with analytics technology and
* Expertise in designing and deploying **Hadoop clusters** and different Big Data analytic tools, including **Pig, Hive, HBase, Oozie, Sqoop, Flume, Spark, and Impala.**
* Effectively use metrics and data visualization to report progress and support data-driven decision-making at the team or organization level. Perform structural modifications using **Map - Reduce, HIVE** and analyze data using visualization/ reporting tools.
* Effectively use metrics and data visualization to report progress and support data-driven decision-making at the team or organization level. Perform structural modifications using **Map - Reduce**, HIVE and analyze data using visualization/ reporting tools.
* Worked on importing data from **MySQL** DB to **HDFS** and vice-versa using **Sqoop** to configure **Hive** metastore with **MySQL**, which stores the metadata for Hive tables.
* Collaborated with team members using version control systems such as Git to organize modifications and assign tasks.
* Imported data from sources like different logs, **API's**, and databases like **MySQL**, **Neo4** ), **Cassandra**, and **DynamoDB** to understand the customer behavior and make the necessary reports as per client requirement
* Worked on **Python / Scala APIs** to get data from **DynamoDB**, **MYSQL**, and **Cassandra** and loaded it into **Databricks** for further analysis
* Loaded python scripts into **AWS S3**, **DynamoDB** and **Snowflake** to read CSV, JSON and parquet files from S3 buckets
* Extracting data wif **Apache Kafka** and using Scala for converting the distributed collection of data organized into named columns, developing predictive analytics using **Apache Spark Scala APIs**
* Importing data from S3 into **AWS Glue** to perform the ETL operations and store the data into **Redshift**
* Involved in converting **Hive / SQL queries** into Spark transformations using **Spark RDDs** and **Scala**
* Developed Scala scripts, UDF's using both data frames / SQL and RDD in Spark for data aggregation, queries and writing back into S3 bucket

# CERTIFICATIONS

* Advanced Excel Skills for Business.
* Machine Learning, by Andrew Ng.
* Deep Learning, by Andrew Ng.
* IBM Data Engineering.

# Extracurricular

**International Student Organization (UCMO) Jun 21 – Sep 22**

*Vice president University of Central Missouri*

* Work with the zone chairperson to ensure every club in your zone operates efficiently and follows the Association’s Constitution & Bylaws.
* Discuss ways of helping clubs that need assistance with membership growth or leadership development.
* Promote various club functions and events, such as inter-club meetings, installation of club officers, induction of new members, or ceremonies honoring Key Award recipients.

**DOT Club (IBS-HYD) Jul 17 – Mar 19**

*Tech Head University of Central Missouri*

* Determining project requirements and developing work schedules for the team.
* Delegating tasks and achieving daily, weekly, and monthly goals
* Keeping up to date with industry trends and developments.
* Updating work schedules and performing troubleshooting as required.
* Motivating staff and creating a space where they can ask questions and voice their concerns.