# NAGA MANOHAR YELUBANDI

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### **OBJECTIVE**

Data engineer specializing in AWS, GCP, and big data technologies with data science master's degree. Seeking a data engineer role to leverage expertise in building scalable data pipelines and innovative data solutions in data-driven organization.

**Programming & Database System** 

**Big Data Technologies** 

**Machine Learning** 

**Data Engineering & Cloud Services** 

CI/CD **Visualization Tools**  Python, SQL, R, Java, C, MySQL, PostgreSQL, Amazon RDS, MongoDB, DynamoDB, Cassandra.

Spark, PySpark, Kafka, Amazon Kinesis, Athena, EMR, Hadoop, Hive, HBase, NiFi, Druid.

Data Modeling, Data Warehousing, ETL, Snowflake, AWS - S3, Lambda, Glue, Step Functions Redshift. GitHub, Jenkins, AWS CodeBuild, Docker, Kubernetes, Terraform, DBT, Airflow, MAGE. Tableau, Microsoft Power BI, Streamlit, D3, Looker, AWS Quicksight, Google Data studio.

NumPy, Pandas, Scikit-learn, PyTorch, TensorFlow, Statistical Modeling, Amazon SageMaker.

## **PROFESSIONAL EXPERIENCE**

# O'Neil School of Public and Environmental Affairs, Indiana University | Bloomington, IN **Data Analytics Engineer**

May 2023 - Aug 2023

- Researched in collaboration with Professor Joanna and integrated data from various sources, uncovering that the arts and cultural sector constitutes 4.5% of the United States' GDP.
- Implemented standardized relational data modeling in PostgreSQL, conducted data cleansing and transformations using PySpark, resulting in 80% acceleration in data retrieval speed with 100% enhancement in data accuracy.
- Developed an interactive sunburst visualization using the D3.js JavaScript library and deployed it on the ArtsAnalytics.org website, resulting in notable **16%** increase in user interaction.

## Accenture | Hyderabad, India

**Associate Data Engineer** Aug 2021 - July 2022

- Created and deployed human resource data model in AWS, resulting in 25% decrease in HR operational costs.
- Led the data migration process from the HCM Fusion Model, successfully transferring and validating data of employees.
- Enhanced HR efficiency by introducing an automated system for managing employee data, reducing data errors by 50% and saving over **10 hours** weekly in manual data entry.
- Generated HR reports using Power BI, leading to 20% reduction in time-to-fill job vacancies and 15% enhancement in quality of new hires.

### **PROJECTS**

# **Reddit Data Engineering Pipeline**

- Led the development of a robust data pipeline using Apache Airflow, Docker containers, AWS S3, and AWS Redshift.
- Leveraged Terraform for AWS resource deployment, employed Python scripts with PRAW API for Reddit data extraction and S3 ingestion, utilized **DBT** for data transformation, data quality checks and data reliability.
- Achieved a significant 25% improvement in process efficiency and empowered stakeholders with actionable insights through intuitive data visualization using Google Data Studio.

# **Financial Data Streaming Pipeline**

- Orchestrated the development of a real-time financial data streaming pipeline using Docker, Kubernetes, and Terraform, resulting in a 20% reduction in data processing time.
- Executed data ingestion with FinnhubProducer, connecting to Finnhub.io API for message retrieval and ingestion into Kafka.
- Established a robust message broker layer with Kafka, monitored with Kafdrop, and set up Zookeeper for metadata management, leading to a 15% improvement in message processing efficiency.
- Built a stream processing layer with Spark Scala application for message transformation and data loading into Cassandra, achieving 40% decrease in data transformation time.
- Constructed visualizations using Grafana to serve data through a dashboard, ensuring timely updates.

## **Airline Data Ingestion**

- Devised the event-driven data pipeline using AWS S3, EventBridge, and Step Function, automating data processing upon file arrival and achieving high operational efficiency.
- Integrated AWS Glue for data transformation and Redshift as the centralized data warehouse, ensuring seamless data integration and enhancing operational reliability for airline data analytics.

## Real-Time Food Delivery Data Analytics with AWS

- Engineered and implemented a real-time data processing pipeline using AWS Kinesis Data Stream and PySpark Streaming on EMR, achieving streamlined data ingestion and processing of food delivery orders.
- Orchestrated end-to-end data workflows with MWAA, scheduling and monitoring data transformations for timely loading into Redshift.
- Designed and deployed a star schema data model on Redshift, optimizing data storage and query performance to facilitate insightful analysis for stakeholders using QuickSight dashboards.
- Established the robust CI/CD pipeline with AWS CodeBuild, automating deployment of dimension tables, DAG files, and PySpark scripts to **S3**, enhancing development efficiency and ensuring reliability of the data pipeline.

# EDUCATION

Indiana University, Bloomington, IN | Master of Science in Data Science

Aug 2022 - May 2024

Relevant Coursework: Big Data with Hadoop and AWS, Data Mining, Advanced Database Concepts.

Vishnu Institute of Technology, AP, India | Bachelor of Technology in Electronics & Communications Engineering

Jun 2017 - May 2021

Relevant Coursework: Data Structures, Computer Architecture and Organization, DBMS.