# KIRAN KUMAR PANNUR SIVAJI

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#### **EDUCATION**

## University of Missouri, Kansas City, Missouri

Master of Science in Computer Science

May 2025

Relevant coursework: Bigdata Management, Cloud Computing, Statistical learning, Design Analysis of Algorithms, NLP

#### WORK EXPERIENCE

### Data Engineering Analyst | Accenture (Travelers Insurance Corporation)

Oct 2021 - Jul 2023

- Managed a diverse portfolio of over 150 databases, each with more than 200 database objects, tailored to meet business requirements.
- Engineered individualized CI/CD data pipelines for 50+ databases, reducing deployment time by 40% and enhancing database agility.
- Established application-specific warehouses in Snowflake, resulting in a 20% improvement in query performance and a 15% reduction in storage costs.
- Orchestrated the migration of over 2TB of data from an on-premises Teradata environment to Snowflake, including ETL pipelines, stored procedures, and database objects.
- Ensured minimal downtime and a seamless transition, resulting in a 25% increase in data accessibility.
- Facilitated the implementation of data connectivity setups for ingestion across 50 new databases, optimizing data access and enhancing data availability.
- Optimized over 250 complex queries, resulting in a 30% reduction in query execution time and significant cost savings, equivalent to \$17,000 annually.
- Conducted thorough analysis and optimization of database and query performance, improving system efficiency and responsiveness.
- Identified and decommissioned unused databases and tables, reclaiming over 1TB of storage space, resulting in a cost savings of \$20,000 annually.
- Developed interactive dashboards using Tableau to analyze user query behavior and associated costs, providing actionable insights into resource utilization and cost allocation, leading to a 30% reduction in unnecessary expenses.

### TECHNICAL SKILLS

Programming Languages: Python, Java, R, SQL, Bash/Shell scripting

Database Management skills & Tools: Data Extraction, Data Warehousing, Data Normalization, Data Modelling, ETL/ELT, DataLake,

MongoDB, Snowflake, Teradata, PySpark, Databricks, Lakehouse, Oracle, Apache Airflow, Spark, Kafka, DBT

AWS: Redshift, S3, Aurora, EC2, RDS, Glue, Athena, Lambda, DynamoDB, QuickSight

Data Visualization & Reporting Tools: Power BI, Tableau, Google docs, Google Sheets, Visual studio,

Microsoft Office Suite: Word, PowerPoint, Excel, Outlook, SharePoint

Web Development Tools & Skills: HTML, CSS, JavaScript, Bootstrap, Flask, Django, Git, GitHub

### **PROJECTS**

# NASA Data Pipeline with Apache Airflow

- Constructed a data pipeline using Apache Airflow to retrieve and process Near Earth Object data from NASA's API.
- Configured Airflow DAGs to schedule and automate the data extraction process at regular intervals. Used Python operators within Airflow to interact with the NeoWs API, fetch data, and store it in Amazon S3 for efficient storage.
- Executed error handling and retry mechanisms in Airflow to guarantee data reliability and enhance pipeline robustness. Implemented deployment of the pipeline on Amazon EC2 instances for scalable processing capabilities.
- Technologies Used: Apache Airflow, Python, Amazon S3, Amazon EC2

## Healthcare Data Integration and Predictive Analytics System

- Developed a comprehensive data integration pipeline to aggregate and analyze healthcare data from various sources, including MIMIC-III, NHANES, and synthetic wearable data.
- Utilized AWS Glue for automated data ingestion and transformation, storing raw data in Amazon S3 and processed data in Amazon Redshift for efficient querying. Implemented batch processing with Amazon EMR to clean and standardize large datasets, enhancing data quality and consistency.
- Built and deployed machine learning models using Amazon SageMaker to predict patient readmission rates and disease progression.
- Created interactive dashboards with Amazon QuickSight to visualize key health metrics and predictive insights for healthcare providers.
- Technologies Used: AWS Glue, Amazon S3, Amazon Redshift, Amazon EMR, Amazon SageMaker, Amazon QuickSight

# CERTIFICATIONS

AWS Developer – Associate

May 2023

**AWS Cloud Practitioner** 

Jan 2022

Snowflake Hands On Essentials – Data Warehouse, Collaboration, Marketplace & Cost Estimation Workshop, Data Application Builders Workshop

## **ACTIVITIES & ACHIEVEMENTS**

- Represented the Computer Science Student Association, advocating for student interests and facilitating communication between students and faculty.
- Recipient of the Merit Holder Award from Accenture in recognition of outstanding performance.