AKSHAY RAMESH
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EDUCATION

UNIVERSITY OF SOUTH FLORIDA | M.S. Business Analytics and Information Systems **AUG 2022 - MAY 2024**

TECHNICAL SKILLS

- **BIG DATA:** Hadoop, Spark, Hive, Kafka, Flume, Sqoop.
- **CLOUD:** Azure Databricks, Azure Synapse Analytics, Azure Data Factory, Azure ML.
- **PROGRAMMING:** SQL, Python, Spark SQL, PySpark.
- **DATA ANALYTICS:** Statistics, Hypothesis Testing, ANOVA, Time series analysis, OLS Regression.
- **DATA VISUALIZATION:** Power BI, Tableau, and OBIEE 11g.
- **DATABASES:** SQL Server, MySQL DB, PostgreSQL DB, Pinecone vector database, MongoDB, Cassandra.

WORK EXPERIENCE

STUDENT ASSISTANT | USF IT, TAMPA, USA **AUG 2022 – PRESENT**

- Introduced **incremental data loading** using **Azure Synapse Analytics**, reducing data load time by 87.5% with an engineered ELT data pipeline.
- Orchestrated the creation of compelling **Power BI** visualizations on university student academic data utilizing **Azure Synapse Analytics**; provided comprehensive insights into student performance and diversity, empowering informed action within the academic institution.

SENIOR SOFTWARE ENGINEER | ACCENTURE SOLUTIONS PRIVATE LTD| BENGALURU, INDIA **OCT 2015 - JUNE 2022**

- Spearheaded the utilization of **Agile principles** to convert business requirements into scalable programming logic, ensuring that structured data seamlessly loaded into **Impala target tables**, reducing data processing time by 40%.
- Leveraged **Azure Databricks and Azure Data Factory** to implement diverse data loading schedules, including hourly, monthly, and quarterly intervals, enhancing operational flexibility and efficiency.
- Designed and implemented data pipelines for **real-time streaming data ingestion** and processing using **Apache Kafka and Apache Spark**, enabling timely insights and decision-making.
- Directed the effective utilization of **machine learning** strategies on **geospatial data**, resulting in a $5 million profit margin enhancement and optimized resource allocation, **reducing operational costs by 15%** while maintaining service quality standards.
- Developed interactive **Power BI** visualizations on telecom datasets using, empowering clients with insights into telecom signal strength for informed, data-driven decision-making.
- Performed a comprehensive data analysis and predictive modeling to forecast customer **churn rates**, resulting in a 15% reduction in customer attrition and increased revenue retention.
- Collaborated cross-functionally with stakeholders to identify **key performance indicators** (**KPIs**) and develop dashboards in **Power BI** for real-time monitoring, optimizing decision-making processes and operational efficiency.

PROJECTS

AZURE CLOUD DATA MIGRATION AND ANALYTICS PLATFORM: (GitHub)

- Created a comprehensive data migration solution leveraging **Azure Data Factory** to migrate on-premise structured data into **Azure cloud**, followed by data transformations using **Azure Databricks** and loading into the gold layer of **Azure Storage Gen 2**.
- Engineered custom views and reports in **Power BI** by leveraging **Azure Synapse Analytics**; stored access credentials securely in **Azure Key Vault** and incorporated a robust security protocol through **Azure Active Directory**.

MS BAIS CHATBOT FOR ASSISTING POTENTIAL AND FUTURE STUDENTS:(GitHub)

- Devised a chatbot leveraging data from diverse sources such as websites, Jira messages, and documents (PDF and DOCX), utilizing **web scraping** techniques for data extraction.
- Incorporated Pinecone API for establishing a **vector database**, enabling efficient storage and retrieval of processed data using cosine similarity.
- Integrated **OpenAI's CHATGPT-4 model** via the **Langchain framework**, incorporating continuous conversation history and context awareness. Generated a user-friendly interface using **Streamlit** app for seamless interaction and information access.

TWITTER SENTIMENT ANALYSIS ON THE RUSSIA-UKRAINE CRISIS: (GitHub)

- Optimized processing time by 40% with **Azure Databricks**, handling 3 million tweets; **logistic sentiment model** achieved **0.82 accuracy**, ensuring precise classification of positive and negative sentiments.

CERTIFICATIONS

- Exam DP-203: Data Engineering on Microsoft Azure **May 2024 (EXPECTED)**
- Databricks Certified Associate Developer for Apache Spark **May 2024 (EXPECTED)**