

VAMSHI KRISHNA KATIKA

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EDUCATION

George Mason University

Masters of Science in Data Analytics Engineering, GPA: 3.70

Fairfax, Virginia

Graduation Date: May 2024

Institute of Aeronautical Engineering

Bachelor of technology in Computer Science and Engineering GPA: 3.30

Hyderabad, Telangana

Graduation Date: Jun 2022

WORK EXPERIENCE

U.S. Fish and Wildlife Service (Apprenticeship)

Data Analytics engineer

Fairfax, Virginia

Jan 2024 - May 2024

- Streamlined the management of migratory bird population and harvest data, enhancing processing speed by 30%, and developed a prototype for data integration and visualization, reducing integration time by 40%.
- Constructed a digital dashboard to display time-series data, improving wildlife management decision-making by 20%, and created optimized DAX measures, increasing KPI analysis accuracy and data processing efficiency by 25%.
- Enhanced user engagement with interactive reports and dashboards, achieving a 35% increase.

SKILLS & INTERESTS

Languages: Python, NumPy, Pandas, Scikit Learn, Pyspark, R Programming, HTML & CSS, Unix

Cloud: Azure Data Factory, DataBricks, Azure Synapse Analytics, Azure Dashboards, Data Lake Gen2.

Database: MySQL, SQL Server, PostgreSQL, MongoDB

Visualization: Tableau, Power BI, Microsoft Excel, Matplotlib, Seaborn

Big Data Technologies: Hadoop, Apache Spark, Hive

Algorithms: Data Structures Algorithms, Machine Learning, Large Language Models (LLMs), Natural Language Processing

IDE's: Jupyter notebook, VS Code, Databricks notebook,

Methodologies: GitHub, Git

PROJECT EXPERIENCE

George Mason University

Fairfax, Virginia

Analytics Pipeline for Olympic Data Using MS Azure

Jan 2024 - Jun 2024

- Developed and deployed a dynamic ETL pipeline using Azure Data Factory, seamlessly transferring 1GB of data from MySQL Server to Data Lake Gen2, reducing processing time by 40%.
- Transformed data in Azure Databricks using PySpark and SQL, then structured it in Azure Synapse Analytics.
- Created interactive dashboards in Power BI, providing clear insights and supporting data-driven decisions.

George Mason University

Fairfax, Virginia

Sales and Revenue Insights Dashboard

Aug 2023 - Dec 2023

- Orchestrated automated ETL workflows using Power Query, reducing data processing time by 25%.
- Engineered a comprehensive data model, boosting data integrity and consistency by 30%.
- Conceived complex calculated columns and measures using DAX, enhancing KPI analysis accuracy by 20%.
- Devised interactive reports and dashboards, increasing user engagement by 40%.

George Mason University

Fairfax, Virginia

Optimization and Analysis of LLM Behavioral Patter

Aug 2023 - Dec 2023

- Researched behavioral patterns of Large Language Models (LLMs), analyzing over 15,000 instances of hallucinations and inconsistencies using Web Searching, Web Scraping, and NLP models.
- Leveraged the OpenAI API key to optimize responses across diverse domains, enhancing LLM output quality by 30% in coherence and relevance.

George Mason University

Fairfax, Virginia

U.S. Telecommunication Data Using Machine Learning

Jan 2023 - May 2023

- Developed logistic regression, k-nearest neighbors, and decision tree models to forecast customer churn, achieving an ROC AUC of 0.88 and improving customer retention strategies.
- Conducted exploratory data analysis and designed feature engineering pipelines using R, enhancing data quality by 20% and identifying key churn drivers, reducing churn by 15%.