Sachin Loddiya Karthik

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SUMMARY

Data Engineer with 3+ years of experience building scalable data pipelines, optimizing ETL workflows, and enabling real-time analytics. Proficient in PySpark, SQL, Azure Databricks, and Synapse, with hands-on experience in data modeling and lakehouse architecture. Skilled at transforming raw data into actionable insights to support business intelligence and strategic decisions.

TECHNICAL SKILLS

Programming Languages: Python, R, T-SQL, Java, C, C++, HTML, CSS, JavaScript

Big Data & Data Engineering: Apache Spark, Apache Kafka, Apache Airflow, Databricks, Docker

Cloud Platforms: Azure (Data Factory, Synapse Analytics, DevOps), AWS (EC2, S3, Glue, Athena, Redshift), GCP (BigQuery, Pub/Sub, Dataflow)

Databases: Azure SQL, Oracle SQL, MySQL, MS SQL Server, PostgreSQL

Data Science Libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-Learn, TensorFlow, PyTorch, OpenCV

Machine Learning: Supervised Learning (Decision Trees, SVM, Random Forest, Linear Regression, Naive Bayes, KNN)

Data Visualization: Power BI, Tableau

Statistical Analysis: ANOVA, Hypothesis Testing, Regression Analysis

Development Tools: PyCharm, VS Code, Jupyter Notebook, R Studio, WinSCP, PuTTY, MS Office

EXPERIENCE

Data Engineer, WMU - USA Jan 2025 - Apr 2025

- Designed an automated class scheduling solution using Google OR-Tools and constraint programming, reducing manual scheduling time by 85% and optimizing faculty-course assignments for 200+ courses across 15 departments.
- Created and deployed a Streamlit-based UI processing 50+ CSV files with real-time validation, reducing data input errors by 90% and enabling interactive visualizations of optimized schedules for 100+ faculty members.
- Minimized scheduling conflicts by 95% and eliminated 40+ hours of weekly manual effort through integration of advanced optimization algorithms and user-friendly frontend interface.

Data Engineer, Green Expectations LLC - USA Jan 2024 – Apr 2024

- Built the backend infrastructure for an AI-powered home sustainability platform, processing 1K+ data points per user through a rule-based House Sustainability Calculator, improving recommendation accuracy by 35%.
- Led the development of a secure user authentication system with persistent session storage, enabling 100% individualized access and supporting real-time tracking for 500+ active users.
- Designed and optimized data flows powering an NLP-based AI chatbot, reducing latency by 40% and increasing user engagement by 25%.

Data Engineer, Accenture - India Jul 2021 - Jul 2023

- Engineered ETL pipelines with Azure Data Factory to migrate and reformat critical supply chain data into Parquet format, boosting processing efficiency by 40% while minimizing disruption.
- Utilized Azure Databricks to process raw supply chain data from Data Lake Gen2, enhancing accuracy by 25% and halving transformation times.
- Developed external tables and views within Azure SQL and implemented interactive Power BI dashboards, enhancing data access and delivering insights that resulted in a 25% increase in operational efficiency.
- Improved data workflows by integrating ADF triggers, Databricks notebooks, and CI/CD pipelines via Azure DevOps, boosting team efficiency by 15% and 30% faster SCPO upgrade project delivery.

Data Engineer, Claritrics India Pvt Limited - India Nov 2020 - May 2021

- Pioneered an advanced ETL pipeline using Azure Data Factory and Azure Databricks to create an OCR solution for extracting text from images, enhancing extraction accuracy by 30%.
- Crafted and scheduled an end-to-end automated workflow using Azure Data Factory for orchestration and Azure Databricks for scalable image processing, achieving a 40% reduction in text extraction processing time.
- Enhanced development and deployment cycles with Azure Data Factory triggers and Databricks job scheduling, resulting in a 20% gain in team efficiency and a 30% acceleration of project timelines.

EDUCATION

Master of Science in Data Science Aug 2023 - Apr 2025

Western Michigan University, Kalamazoo, Michigan GPA - 3.86/4

Relevant Coursework: Machine Learning, RDBMS, Azure Databricks and Spark For Data Engineers (PySpark / SQL), Applied Linear Models, Big Data Analysis, Google Cloud Big Data and Machine Learning Fundamentals.