RAHUL CHAVAN

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DATA ENGINEER

Professional Summary

Data Engineer with 2+ years of experience in designing, building, and optimizing data pipelines and ETL/ELT workflows in cloud environments (AWS, Azure, Databricks, Snowflake). Proficient in Python, SQL, and PySpark for data processing, with hands-on experience in SAS to PySpark migrations, Generative AI applications, and real-time data ingestion. Strong knowledge in cloud-native tools, big data frameworks, and AI-driven automation.

Technical Skills

- Languages: Python, SQL, PySpark, SAS
- Big Data & Processing: Spark, Hadoop, Databricks, Airflow
- Cloud Platforms: AWS (EC2, S3, Lambda, Glue, SageMaker), Azure (Data Factory, Synapse, DevOps), GCP (Vertex AI)
- Data Engineering: ETL, ELT, Data Warehousing, Data Lake, Data Modeling, Data Integration, Data Governance
- AI & ML: Open-Source LLM Fine-tuning, RAG Pipelines, Generative AI, Chatbots
- Tools & Visualization: Snowflake, Power BI, QuickSight, Looker

Professional Experience

LTIMindtree – Data Engineer

Sep`2023 – Present

Data Engineering & Pipeline Development

- Migrated complex SAS and PL/SQL ETL workflows to PySpark using Databricks notebooks and custom analyzers, improving scalability and reducing execution time by 40%.
- Designed and maintained scalable ETL pipelines in PySpark, SQL, and Python across multi-cloud platforms (AWS, Azure, GCP) for batch and near real-time data processing.
- o Integrated with Snowflake, S3, Delta Lake, and Azure Data Lake to enable secure, efficient data movement aligned with enterprise governance standards.
- Implemented data quality validation layers using Great Expectations and custom PySpark UDFs to ensure schema consistency and high data accuracy.

LLM & GenAl Integration

- Built GenAl-powered applications for code translation, lineage extraction, and metadata classification using LangChain, OpenAl, Vertex Al, and SageMaker.
- Enabled natural language to SQL/PySpark conversion within Streamlit dashboards, allowing business users to perform ad-hoc queries without technical support.
- Developed agentic systems (Meta Migrator, Analyzer, Validator) for SQL-to-PySpark conversion workflows using multi-agent orchestration and result caching.

Platform Engineering & Monitoring

- Designed automated logging and exception monitoring pipelines using AWS Lambda, CloudWatch, SNS, and S3 for ETL observability and real-time alerting.
- Built modular and reusable codebases for PySpark transformations with parameterized configurations and metadata-driven orchestration.
- Achieved 18% cost reduction in Databricks jobs through job parallelization, dynamic cluster sizing, and
 Spark performance tuning.

Cloud & DevOps

- Delivered end-to-end pipeline lifecycle support across AWS (Lambda, SageMaker, Glue), GCP (Vertex AI, BigQuery), and Azure (Blob Storage, ML Studio).
- Implemented CI/CD for ETL and AI pipelines using GitHub Actions, Docker, and Terraform to streamline deployments and infrastructure provisioning.

Projects

Pik-Pok – Social Video Sharing Platform

- Built using AWS EC2, S3, Lambda, and CloudFront for serverless content delivery.
- Implemented backend in WordPress, ensuring secure media management.

• MediBot – Al-Powered Healthcare Assistant

- Developed using Streamlit and Google Gemini API for patient interaction automation.
- Used fine-tuned LLMs to generate custom responses for hospital-related queries.

Natural Language to SQL Generator (Text-to-SQL Web App)

- Developed a Streamlit-based Text-to-SQL generator that translates natural language queries into optimized SQL statements using AI APIs (Gemini, TogetherAI, AgenticAI).
- Enabled users to upload XLSX datasets, dynamically extract and parse column metadata, and generate context-aware SQL queries for analysis.

Certifications

- AWS Data Engineer Associate
- Snowflake SnowPro Core
- Databricks Data Engineer Associate
- Oracle Generative AI Certified
- Microsoft Fabric Analytics Associate

Education

Bachelor of Technology in Civil Engineering

SKN Sinhgad College of Engineering, Pandharpur | 07/2018 – 08/2022 | CGPA: 9.8 (First Class with Distinction)