

VEDANTA DHOBLEY

SOLUTIONS ENGINEER

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Engineering scalable solutions for Global Finance and Risk Functions at Citigroup.

Designing and developing financial data pipelines and ETL workflows to analyze mortgage, loan, rates, and pricing data for risk, compliance, and wealth management stakeholders.

EDUCATION AND CERTIFICATION

BS Applied Sciences in Engineering @ Rutgers University School of Engineering, New Brunswick

2016 - 2020

AWS Certified Solutions Architect - Associate @ Amazon Web Services

2024

TECHNICAL SKILLS

Development: Java, Python, Spring Framework, GoLang, Oracle SQL, MongoDB, CyberArk

Data Pipeline: Apache Kafka, Apache Spark, Apache Hadoop, Apache Hive

Deployment: Unix Shell, Bash, Git, Docker, SonarQube, Jenkins

WORK EXPERIENCE

Backend Data Engineer @ Citigroup, Jersey City

2021 - Present

➤ **Orchestration Reengineering**

- o Designed and developed a RESTful API using Java Spring Framework and Swagger to reengineer an orchestration pipeline, enhancing ETL job management and modernizing the monolithic codebase.
- o Implemented an Apache Kafka queuing system to streamline orchestration requests and provide fine control parameters for parent solutions through a robust pipeline.
- o Integrated Apache Livy and a Spark cluster for efficient execution of ETL Jars from S3 storage, along with vastly improved log clarity for auditing multi-step orchestration.

➤ **Retail Pipeline Auditing Interface**

- o Designed and developed a Python-based RESTful API accessing OracleSQL and Mongo databases, exposing retail pipeline metadata to an intranet web application auditing tool.
- o Internal restrictions required developing a Java-based tool for CyberArk password retrieval and Bash scripts for Python Virtual Environment deployments with Wheel dependencies in higher environments.
- o Documented and deployed the CyberArk retrieval JAR and Python deployment scripts for other engineers to utilize, improving efficiency by reducing repeated labor.
- o Worked in tandem with a front-end developer to produce an intuitive interface for auditing ingestion metadata from various retail data processing pipelines.

➤ **Enterprise Database Encryption**

- o Designed and developed a Java-based solution that uses NIST-approved Format Preserving Encryption algorithms to redact SQL tables without altering their schema.
- o Accomplished in place encryption of international mortgage and risk data, redacting internal PII without over allocating resources to minimize overhead and budget impact.
- o Improved efficiency by 25% through multithreading, including file staging and splitting, while ensuring rigorous testing for optimal security and user-centric development.

➤ **Automated ETL Workflow**

- o Designed and developed an ETL solution with Spring Framework, automating SQL database queries and pushing results to an HDFS cluster, enabling distributed data processing for improved bandwidth across multiple nodes.
- o Implemented daily automation using CRON timestamps and Spring Scheduler, while ensuring secure SQL database access with Spring JDBC and CyberArk.
- o Decoupled and certified an automated email implementation from a legacy project, establishing it as a trusted internal dependency for broader team use.