

# EEGAPURI LOKESHWAR REDDY

Data Engineer

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## SUMMARY

Data Engineer with 3 years of experience designing and supporting batch and streaming data solutions, ETL/ELT workflows, and enterprise data warehousing across production and disaster-recovery environments. Hands-on expertise in dimensional modeling, OLAP systems, and data marts, gained through extensive EDW experience. Proficient in relational database architectures, big-data frameworks, and cloud-based analytics, with a strong interest in data lake and lakehouse technologies for unified platform solutions. Combines deep operational discipline with a problem-solving mindset to build robust, real time and batch data solutions.

## SKILLS

**Databases & Warehousing:** PostgreSQL, Data Warehousing, Data Modeling, Dimensional Modeling, ERD, Data Lakes, Data Lakehouse, Delta Lake, Teradata  
**ETL / Workflow Orchestration:** Ab Initio, Apache Airflow, Shell Scripting  
**Big Data & Batch Processing:** Apache Spark (SparkSQL, PySpark), Hadoop (HDFS, YARN)  
**Streaming & Messaging:** Apache Kafka, Confluent Kafka, ksqlDB  
**Cloud & DevOps Tools:** AWS Glue, AWS S3, Databricks, Red Hat Linux, Git, Looker Studio  
**Programming Languages & Libraries:** Python, SQL, Pandas, NumPy, Requests, SQLAlchemy, DB API  
**Collaboration & Issue Tracking:** JIRA, Remedy  
**Soft Skills:** Problem Solving, Communication, Analytical Thinking, Adaptability, Attention to Detail, Risk Management, Decision-Making, Emotional discipline, Patience, Reliability, Knowledge Sharing  
**Languages** English, Hindi, Telugu

## CERTIFICATIONS

IBM Data Warehouse Engineer, IBM	Mar '25
Confluent Fundamentals Accreditation, Confluent	Jan '25
Academy Accreditation - Databricks Fundamentals, Databricks	Dec '24

## PERSONAL PROJECTS

### RentLok: Real-Time Rental Management System | [Link](#)

- **Tech Stack:** Android, FastAPI, PostgreSQL, Apache Kafka, Kafka Connect, ksqlDB, SQLAlchemy, Pydantic, JSON
  - Built an end-to-end **OLTP** data pipeline for a rental management system with a native **Android app** and backend powered by **FastAPI**, **PostgreSQL**, and **Apache Kafka**.
  - Developed secure **RESTful APIs** over **HTTPS** to process **JSON** data, enforced schema validation with **Pydantic**, and used **Kafka Connect** to stream PostgreSQL data into Kafka topics.
  - Implemented **ksqlDB** for real-time transformations and aggregations, enabling live in-app metrics; optimized the **PostgreSQL** schema for low-latency access and modular microservice deployment.
- **Key Learning:**  
Successfully transitioned from **OLAP** to **OLTP** system design, demonstrating the ability to build reliable, API-driven, real-time data pipelines and translate business requirements into scalable, end-to-end data solutions.

### Telecom Data Pipeline | [Link](#)

- **Tech Stack:** Apache Airflow, Apache Spark (PySpark), PostgreSQL, Shell Scripting, Python
  - Designed a batch processing **ETL pipeline** to process millions of **CDR records** using **Airflow** for orchestration and **PySpark** for scalable, distributed transformations.
  - Developed **fraud detection logic** to identify suspicious patterns like high-frequency calls and short-duration international interactions.
  - Implemented **audit logging** and **error tracking**, improving pipeline observability and operational reliability.
- **Key Learning:**  
Demonstrated the ability to design **scalable, distributed** data transformations using **PySpark**, while enhancing reliability through fraud detection logic and robust logging.

### E-Commerce Data Pipeline | [Link](#)

- **Tech Stack:** Apache Airflow, MySQL, PostgreSQL, Foreign Data Wrapper (FDW), Python, Pandas, SQL
  - Built a **modular batch ETL pipeline** using **Airflow** to automate **CSV ingestion** and transformations across **MySQL** and **PostgreSQL**.
  - Enabled **cross-database querying** using **PostgreSQL FDW**, secured credentials with **.my.cnf** and **.pgpass**, and optimized performance through **indexing**.
  - Exported **cleaned data** for downstream analysis, showcasing a **reusable and scalable** data integration workflow.

- **Key Learning:**  
Strengthened skills in Airflow orchestration, relational database ingestion, and **secure, cross-database batch processing**, aligned with real-world data engineering practices.
- Game Development & 3D Modeling** | [Link](#)
- **Tech Stack:** Unity, C#, Blender
    - Developed a **PC game ("Cubon")** using **Unity** and **C#**, implementing player controls, interactive mechanics, and UI features.
    - Created and animated **3D** models in Blender, applied **texturing** and **rendering**, and integrated assets into the **Unity engine**.
  - **Key Learning:**  
Gained hands-on experience in **software development**, event-driven programming, and **3D** rendering pipelines — combining creative and technical skills foundational to full-cycle product development.

EXPERIENCE

<b>System Engineer/Data Operations</b>	Apr '19 — Feb '22
Tata Consultancy Service (TCS)	Hyderabad
<ul style="list-style-type: none"> <li>• <b>Project 1: Saudi Telecom Company (STC) – Enterprise Data Warehouse (EDW) Operations (Apr '19 - Feb '22)</b>  <b>Environment:</b> Production &amp; Disaster Recovery (DR)  <b>Tools:</b> Ab Initio, Teradata, Red Hat Linux, SQL, Shell Scripting, Jira, Remedy               <ul style="list-style-type: none"> <li>• Monitored <b>2000+</b> enterprise-scale ETL jobs across OLAP and data mart environments, responding to daily requests and escalations to ensure uninterrupted data flow.</li> <li>• Oversaw ingestion from <b>CRM, CDR, and IRB</b> systems via SFTP and SQL Extraction, automating workflows to reduce manual interventions.</li> <li>• Handled <b>200+</b> Change Requests, including deployment of <b>45+</b> new <b>ETL</b> jobs, optimizations, data reloads, and decommissions—preventing multiple potential SLA breaches.</li> <li>• Developed and optimized SQL queries to track business-critical KPIs (postpaid, prepaid, landline, sales) and automated discrepancy reporting for proactive resolution.</li> <li>• Created Shell Scripts to monitor system resources, detect transformation failures, and clean unwanted files—recovering <b>30%</b> storage space, improving operational efficiency by <b>35%</b>, and ensuring <b>100% data</b> completeness.</li> <li>• Collaborated in <b>4–5</b> Disaster Recovery (DR) drills to validate failover processes: tested job workflows, source connections, scheduling configurations, and maintained documentation for seamless execution.</li> </ul> </li> <li>• <b>Project 2: Saudi Telecom Company (STC) – Kafka-Based Event Streaming Operations (Mar '21 – Feb '22)</b>  <b>Environment:</b> Production  <b>Tools:</b> Confluent Kafka, Python, Kafka Client Libraries, ksqlDB, Avro, JSON               <ul style="list-style-type: none"> <li>• Managed operations and maintenance of <b>250+</b> Kafka topics, supporting real-time event streaming and ksqlDB stream processing alongside EDW batch workflows.</li> <li>• Ensured schema compatibility by handling <b>Avro</b> and <b>JSON</b> message formats and resolving connector issues (JDBC/ODBC, HTTP integrations, SSL errors, schema mismatches).</li> <li>• Developed Python scripts using Kafka client libraries to automate health checks, monitor consumer lag, and send real-time alerts—significantly reducing manual monitoring effort.</li> <li>• Addressed core Kafka issues including RBAC permission errors, driver mismatches, performance tuning, and schema evolution conflicts to maintain reliable data delivery.</li> </ul> </li> </ul>	

EDUCATION

<b>B-Tech in Mechanical Engineering</b> , CVR College of Engineering (GPA: 9.56)	Mar '15 — Mar '19 Hyderabad
<b>Intermediate in Intermediate</b> , Narayana Junior College (GPA: 9.7)	Apr '13 — Mar '15 Hyderabad

AWARDS & ACHIEVEMENTS

- **On the Spot Award** for outstanding performance and exceptional contributions to **ETL operations** and **system optimization**.
- Received **client appreciation** for ensuring seamless system operations and maintaining **100% KPI availability** with **zero SLA breaches**.
- Cleared the first round of **TCS CodeVita Season 7 (2018)**, a global coding competition, demonstrating strong **programming** and **problem-solving skills**.