Kaustubh Upadhyaya

Bengaluru, KA • +91 84319 88388 • kaustubhupadhya@gmail.com • linkedin.com/in/kaustubhupadhyaya

PROFESSIONAL SUMMARY

Detail-oriented Data Engineer with 2 years of experience building scalable ETL pipelines and automating validation with Airflow, SQL, and Great Expectations. Skilled in AWS, API development, and cross-functional collaboration. Proven success in reducing data errors, optimizing performance, and delivering reliable cloud-integrated solutions. Passionate about data quality and driving business impact through engineering.

WORK EXPERIENCE

Data Engineer

Eli Lilly and Company - Bengaluru, India | July 2023 - Present

Pipeline Development & Automation

- Spearheaded the migration of 50+ DAGs to Kubernetes-based Airflow, decreasing data error rates by 15% and improving overall pipeline reliability by 20% with robust data validation.
- Built automated Airflow error detection, cutting incident response time by 25%.
- Optimized 100+ Jenkins CI/CD jobs for SQL validation, boosting runtime efficiency by 20%.

Data Validation & ETL Quality Assurance

- Designed 30+ Great Expectations suites to enforce schema, null, and uniqueness checks across ETL pipelines handling 10 million+ records/day in a Data Lake.
- Embedded validation in Airflow DAGs, reducing manual QA by 70% and data issues by ~40%, with monitoring via AWS CloudWatch.

API & Database Engineering

- Developed REST APIs for real-time data ingestion and transformation, exceeding SLAs for uptime and latency.
- Designed performant PostgreSQL schemas for multi-occurrence fields, improving query speed by 40% via indexing and partitioning.
- Automated SQL execution integrated with AWS S3 for ingesting structured/semi-structured data; DBT integration planned.

Infrastructure & Cross-functional Collaboration

- Automated S3-to-SFTP folder sync using Shell scripts and AWS Lambda, reducing setup effort by 60% and enabling scalable data warehousing.
- Led secret management across Kubernetes environments using AWS Secrets Manager, coordinating with 5+ teams to manage 50+ secured variables.
- Configured modular ETL scheduling in Airflow with cron triggers and custom mail alerts, reducing misconfigurations by 25%.
- Enhanced data integrity by implementing data validation rules and constraints in collaboration with DBAs, e nsuring data consistency across 10+ tables; this improved data accuracy.
- Delivered case studies leveraging S3-hosted data lakes and transformation logic, accelerating clinical decision-making by 20%.

EDUCATION

Bachelor of Engineering, Information Science & Engineering BMS College of Engineering, Bengaluru | Aug 2023 Graduate | CGPA 8.34/10

SKILLS & CERTIFICATIONS

- Languages & Querying: Python, SQL, Bash.
- Data Engineering Tools: Apache Airflow, Jenkins, Great Expectations.
- Databases: PostgreSQL, MySQL, Oracle DB, RDBMS.
- Cloud & Storage: AWS (S3, EC2), GCP, HPC systems.
- Data Integration: REST APIs, JSON, XML.
- **Testing & Automation:** Unit Testing, Data Validation, CI/CD Pipelines.
- Other: ETL Development, Secret Management, Schema Design, Monitoring & Alerting Systems, Cross-functional Collaboration.