

ANIMESH SINGH

Grt. Noida ,UP,India

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Aspiring Data Engineer skilled in Python, SQL, ETL processes, data pipeline design, database management (PostgreSQL, MySQL), workflow orchestration and containerization with Docker. I am eager to leverage automation and data engineering skills to build robust data pipelines and contribute to impactful data-driven solutions.

Education

Bachelor of Technology | Galgotias University, Grt. Noida, UP

Jun. 2020 – May 2024

- Major: Computer Science Engineering
- CGPA: 8.0

Experience

LG Electronics India

April 2024 – Current

Automation Testing and Development

Noida, UP

- Spearheaded the implementation of UiPath-driven automation initiatives within Factory Projects and potentially Finance departments, resulting in an 80% increase in operational efficiency.
- Developed and deployed an automated daily build and test reporting system, enhancing information accessibility and accuracy for relevant business units. .
- Analyzed existing business processes in manufacturing and logistics to identify and prioritize automation opportunities suitable for RPA implementation.
- Managed the deployment, scheduling, and performance of automation bots via UiPath Orchestrator, ensuring seamless integration with departmental workflows.

Projects

Real-Time IOT ETL for Reactive and Predictive Maintenance

[🌐 Website](#) [🐙 GitHub](#)

Technologies: *Python, PostgreSQL, Airflow, Kafka, Docker, Grafana Loki, Firebase*

- Architected and implemented a **containerized IoT telemetry pipeline** capable of simulating ingestion events from **10M+ smart devices** (e.g., Ref, WM, TVs), mimicking LG ThinQ platform architecture using MQTT and Kafka
- **Engineered a dynamic container orchestration mechanism** (Docker) to auto-deploy device-type-specific services, ensuring **95% resource efficiency** and scalable data segregation.
- **Streamlined real-time Events flow** by forwarding telemetry from MQTT brokers to Kafka topics with minimal latency (¡100ms), improving downstream processing throughput by **40%**.
- Enhanced system reliability and observability by 85% through centralized logging with Grafana Loki, visualized via Grafana dashboards, and integrated Discord alerting for proactive monitoring.

Real-Time ETL of Road Traffic & Weather Monitoring

[🌐 Website](#) [🐙 GitHub](#)

Technologies: *Python, PostgreSQL, Airflow, Kafka, Docker, Grafana Loki, Firebase*

- Built an end-to-end real-time data engineering pipeline that collects and processes 2500+ live API responses daily from Overpass, TomTom Traffic, and WeatherAPI.
- Designed a decoupled ingestion architecture using Apache Kafka, enabling scalable, asynchronous data streaming into PostgreSQL structured data storage and Firebase for secure credential management.
- Orchestrated ETL workflows, scheduling, and dependency management using Apache Airflow ensuring timely scheduling and fault-tolerant task execution.
- Enhanced system reliability and observability by 85% through centralized logging with Grafana Loki, visualized via Grafana dashboards, and integrated Discord alerting for proactive monitoring.
- Containerized all services using Docker Compose, implementing persistent storage and simplifying deployment processes for improved operational efficiency.

Technical Skills

Languages: Python, SQL, Dot ne,

Developer Tools: VS Code, Eclipse, Google Cloud Platform, Android Studio

Technologies/Frameworks: Linux, Jenkins, GitHub, JUnit, WordPress