KATHYAYANI SASALA

Data Engineering & Analytics Specialist

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Summary

With **4 years** of hands-on experience in **designing and developing data pipelines**, performing **advanced analytics**, and building **cloud-native data workflows** on **GCP** and **AWS**. Proficient in leveraging **Python**, **SQL**, and modern data platforms to process **large-scale datasets** for **real-time** and **batch processing**. Experienced in collaborating with **cross-functional teams** to deliver **business insights** and **scalable data products**. Brings a balanced skill set of **engineering precision** and **analytical depth**, enabling both robust infrastructure and impactful decision-making.

- **Cloud Platforms (GCP & AWS):** Skilled in **Big Query**, **Dataflow**, **Pub/Sub**, **GCS (GCP)** and **Redshift**, **S3**, **Glue**, **Lambda** (**AWS**) to design **efficient** and **secure data workflows** across **hybrid cloud** environments.
- **Data Engineering & Integration:** Built **batch and streaming ETL pipelines** using **Python**, **SQL**, **Apache Kafka**, and **Airflow**. Familiar with **orchestration**, **error handling**, and **data validation** best practices.
- **Analytics & Business Intelligence:** Delivered **actionable insights** via **Looker**, **Tableau**, and **Google Data Studio**. Transformed **raw data** into **analytics-ready datasets** aligned with stakeholder needs.
- **DevOps & Automation:** Experience with **Docker**, basic **CI/CD pipelines**, **Git**, and **Terraform** for **automating deployments** and maintaining **environment consistency**.
- **Data Quality & Governance:** Applied **data profiling**, **validation**, and **lineage tracking** to ensure **reliability** and **accuracy** of data products.
- **Team Collaboration:** Active contributor in **Agile teams**; participated in **sprint planning**, **code reviews**, and **collaborative problem solving** with **analysts**, **data scientists**, and **product owners**.

Education

Master's in **computer science** | **Florida Atlantic University |** Florida, USA	*Dec 2024* | GPA 3.9
Bachelor's in **computer science** | **Bharat Institute of Engineering and Technology, Hyderabad |** India	
	May 2019 | GPA 2.7

Technical Skills

Languages & Programming: Python, SQL, Java, Shell Scripting

Data Engineering: ETL Pipeline Development, Real-time Data Streaming, Data Transformation, Query Optimization, Data Quality & Validation

Cloud Platforms: Google Cloud Platform (BigQuery, Dataflow, Pub/Sub, Google Cloud Storage, Composer), AWS (S3, Lambda, Redshift, Glue, Kinesis)

Databases: BigQuery, MongoDB, PostgreSQL, MySQL, Firestore, DynamoDB

Workflow Orchestration: Apache Airflow, GCP Composer

Streaming & Messaging: Apache Kafka, Google Pub/Sub

DevOps & CI/CD: Docker, Kubernetes, Jenkins, Git, GitHub Actions, Terraform

Monitoring & Observability: Google Stackdriver, AWS CloudWatch, Prometheus

Testing & Quality: Unit Testing, Integration Testing, Data Validation Scripts

Development Tools: VS Code, IntelliJ IDEA, Jupyter Notebook

Concepts & Practices: Distributed Systems, Agile Development, Data Governance, Secure & Scalable Data Architecture

Work Experience

Application Support Coordinator |<u>Florida Atlantic University</u>   **Feb 2025 – Present**

Served as a key technical contributor in supporting and enhancing the university's IT infrastructure and AI-driven research platforms. Developed cloud-ready tools, managed infrastructure deployments, and ensured continuous application performance for students, staff, and research stakeholders.

Key Projects & Responsibilities:

- **Cloud-Based IT Tools & AI Support Systems:** Developed and maintained web-based applications to support campus-wide IT and AI initiatives, resulting in a **30% improvement in system performance** and administrative task automation.
- **CI/CD Optimization:** Designed and deployed **CI/CD pipelines** using GitHub Actions and Jenkins to streamline development workflows and reduce deployment time by **40%**.
- **Cloud Infrastructure Management:** Deployed and managed **cloud applications on AWS and Azure**, achieving **99.9% uptime** while ensuring **compliance with university security policies**.
- **SSO Integration & Identity Management:** Implemented **Single Sign-On (SSO)** integrations across internal platforms, improving login security and reducing access-related support requests by **50%**.
- **Knowledge Management & Documentation:** Authored and maintained technical documentation for application lifecycles, tools, and procedures, improving **onboarding efficiency by 20%** and supporting knowledge transfer across IT teams.
- **Modernization & Framework Integration:** Integrated **modern frontend frameworks** into legacy systems, boosting development efficiency by **35%** and improving UI responsiveness.
- **End-User Support & Issue Resolution:** Resolved **200+ technical support cases** across departments, maintaining an **average issue resolution time under 24 hours**, ensuring smooth IT operations for academic and research users.

Graduate Student Worker| [Florida Atlantic University](#)   Aug 2023 – Dec 2024

Provided technical and cloud infrastructure support as part of the university's IT services team. Contributed to cloud-based deployments, help desk operations, and system upgrades, supporting hundreds of end-users across campus.

Key Projects & Responsibilities:

- **IT Help Desk Ticketing Optimization:** Managed and maintained the university's **IT support ticketing system**, resulting in a **25% reduction in average resolution time** and improved response efficiency.
- **Cloud Deployment – Trussed AI:** Deployed and configured **Trussed AI** software on **AWS cloud**, optimizing **resource allocation** and achieving a **30% increase in deployment speed**.
- **System Upgrades & Team Leadership:** Directed a team of **5 student technicians** through **critical infrastructure upgrades, system migrations, and cloud deployments**, increasing **operational efficiency by 15%** and reducing **downtime by 20%**.
- **Service Enhancements:** Led enhancements to the help desk platform, incorporating user feedback to improve workflows and increasing **user satisfaction ratings by 20%**.

Data Engineer | [ATOS | SYNTEL](#)   Oct 2019 – Dec 2022

Joined as a campus hire and quickly progressed into a data engineering role within a major healthcare modernization program for a U.S.-based client. Contributed to the development of real-time data pipelines, SQL optimization, and cloud-based analytics infrastructure aimed at improving claims processing, provider insights, and regulatory reporting.

Project: Healthcare Data Modernization – U.S. Healthcare Client

Key Contributions:

- **ETL & Data Pipeline Development:** Built and maintained **batch and real-time ETL pipelines** using **Python**, **SQL**, **Apache Kafka**, and **Airflow**, ingesting millions of claims and provider records from distributed source systems into **Google BigQuery**.
- **Cloud Integration (GCP & AWS):** Designed cloud-based workflows leveraging **Pub/Sub**, **Dataflow**, and **Google Cloud Storage** to handle real-time data ingestion and transformation. Used **AWS S3**, **Glue**, and **Redshift** for structured data warehousing in hybrid environments.
- **Data Modeling & Optimization:** Created **partitioned and clustered tables** in **BigQuery** to support low-latency queries. Optimized **Redshift SQL** queries and schema structures, improving report performance by **50%**.
- **Data Quality & Validation:** Built custom Python scripts for **automated data validation**, anomaly detection, and schema enforcement, resulting in **40% fewer downstream data issues**.
- **Cross-Functional Collaboration:** Worked with data analysts, business SMEs, and QA engineers to define KPIs, build data marts, and ensure traceable and reliable reporting outputs for billing, claims adjudication, and compliance tracking.
- **Growth & Impact:** Started as a fresher focused on QA support and manual SQL testing. Within one year, promoted into the core data engineering team, owning end-to-end pipelines and participating in client architecture discussions. Contributed to reducing the client's data processing SLA from 6 hours to under 2 hours.

Certifications, Honors & Awards

- **Data Analysis with Python – FreeCodeCamp**
  Certified in data analysis using Python, including NumPy, Pandas, Matplotlib, and SciPy. Demonstrated skills in data cleaning, visualization, exploratory data analysis (EDA), and building analytical models for insights generation.

- **AWS Certified Developer – Associate (DVA-C02) – LinkedIn Learning**
  Completed certification preparation for the AWS Developer Associate exam, gaining expertise in AWS services like Lambda, S3, DynamoDB, SNS, and IAM. Built and deployed cloud-native applications with best practices in security and serverless development.

- **AWS Cloud Quest: Cloud Practitioner – Amazon Web Services**
  Earned foundational AWS certification through a hands-on, gamified learning experience covering core cloud concepts in compute, networking, databases, and security.

- **ServiceNow Certified System Administrator – ServiceNow**
  Certified in ServiceNow administration, including platform navigation, form configuration, workflow automation, user/group management, and Service Catalog functionality.

- **Intermediate Technical Interview Prep – CodePath**
  Completed an intermediate-level program focusing on data structures, algorithms, and system design. Practiced LeetCode-style problems to strengthen real-world problem-solving and technical interview skills.

- **Docker Foundations Professional Certificate – Docker & LinkedIn Learning**
  Certified in Docker fundamentals, including containerization, Docker CLI, Dockerfiles, volumes, and image management. Demonstrated ability to build and run containerized applications in development and production environments.

- **Selenium WebDriver with Java for Beginners – Udemy**
  Completed practical training in Selenium automation using Java. Gained experience in writing test scripts, browser automation, TestNG integration, and testing real-time web applications.