Akash Adhikary

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PROFESSIONAL SUMMARY

Results-driven Senior Data Engineer with **6+** years of experience designing cloud-native, large-scale data platforms and real-time analytics pipelines across GCP, AWS, and Snowflake. Skilled in building event-driven architectures using Kafka, Pub/Sub, and Spark, and orchestrating complex workflows with Airflow and Matillion. Proven expertise in ETL framework design, streaming ingestion, and CDC-based data modeling using Snowpipe, Streams, and Tasks. Adept at partnering with cross-functional product, ML, and analytics teams to deliver high-quality, globally scalable data solutions that power personalization, user insights, and business intelligence. Passionate about architecting data systems that enable data-driven storytelling at scale.

TECHNICAL SKILLS

Programming & Frameworks: Python, PySpark, SQL, C/C++, Pandas, NumPy, SciPy
Cloud Platforms: AWS (S3, Lambda, API Gateway, CloudFormation), Azure, Google Cloud Platform (GCP)
Big Data & Analytics: Spark, Databricks, BigQuery, Kafka, Thoughtspot, Power BI
Data Warehousing: Snowflake, BigQuery, MongoDB, Oracle, IBM Db2
ETL & Orchestration: Airflow, Matillion, Qlik Replicate, Informatica
DevOps & IaC: GitHub Actions, Docker, CI/CD pipelines
Databases: SQL (PostgreSQL, MySQL), NoSQL (MongoDB, DynamoDB)

PROFESSIONAL EXPERIENCE

Senior Data Engineer   Jul 2023 – Present
ThoughtSpot   *Bangalore, India*
Leading end-to-end data platform initiatives across Finance, GTM, HR, Security, and CloudOps using GCP, Snowflake, Python, Databricks, and Matillion to deliver real-time analytics and cost-saving solutions.

- Designed **scalable ingestion pipelines** for 20+ systems (Salesforce, NetSuite, Coupa, Workday, Jira, Tenable) via **APIs and file-based ingestion** — reduced data latency by 70%
- Developed **modular ETL frameworks in PySpark**, cutting onboarding time for new sources by 60%
- Designed **automated data labeling workflows using Snowflake Cortex AI** to enrich large datasets with semantic tags, enabling faster **scenario detection and analysis** — aligning with autonomous system data enrichment use cases
- Engineered customer usage analytics platform using **telemetry**, Stripe, and SFDC — enabled usage-based pricing and recovered 12% in revenue leakage
- Built cloud cost analytics platform **Cloud Brain on GCP** to track internal cloud usage, detect idle resources, and automate clean-up — achieved 30% reduction in cloud spend
- Partnered with InfoSec to centralize **security KPIs and audit data** from Rapid7, Tenable, Jira, and ServiceNow
- Modeled critical KPIs (ARR, NRR, Sales Comp, Talent Acquisition) in **Snowflake**, improving planning accuracy by 25%
- Delivered executive dashboards via ThoughtSpot, reducing reporting effort and improving decision velocity by 90%

Digital Engineering Engineer   Jun 2022 – Jul 2023
NTT DATA   *India*
Seamlessly migrated enterprise data landscape from Netezza to Snowflake and Matillion, unlocking enhanced data capabilities and modernizing analytics infrastructure.

- Led enterprise data warehouse modernization from Netezza to **Snowflake and AWS**, architecting dimensional models and metadata-driven ETL frameworks for terabytes-scale analytics
- Automated ETL pipeline conversion using **Python and Matillion**, optimizing for distributed processing and ensuring 98%+ data accuracy through comprehensive unit testing frameworks
- Migrated Informatica workflows to cloud-native serverless ETL leveraging **AWS Lambda, S3, and API Gateway**—preserved data lineage and governance across migration
- Developed orchestration frameworks ensuring code quality through automated testing, code reviews, and CI/CD integration

Senior Systems Engineer   Dec 2019 – Jun 2022
Infosys Ltd.   *India*
Modernized client's data landscape from Oracle to Snowflake Cloud Data Warehouse using ETL tools like Matillion and Qlik Replicate.

- Built **metadata-driven ingestion frameworks** using Matillion ETL and Qlik Replicate for real-time data replication from heterogeneous sources (Oracle, IBM Db2, S3, Azure) to Snowflake
- Developed log streaming, change tracking, and apply changes tasks for real-time data synchronization supporting analytics workloads
- Automated ETL deployments, monitoring, and alerting using **Python scripts and CloudFormation**, enhancing operational reliability and reducing manual intervention by 80%
- Designed scalable ingestion pipelines supporting cloud data warehouse migration from Oracle to Snowflake for enterprise clients

Embedded Systems Intern   Jun 2018 – Aug 2018
GT Silicon Pvt Ltd (IIT Kanpur Incubated)   *India*
Enhanced open-source motion sensing platform for Navigation, developing sensor fusion algorithms and telemetry pipelines for autonomous vehicle testing.

- Enhanced open-source motion sensing platform (Oblu) integrating multi-sensor telemetry (IMU + GPS) for **navigation and autonomous system**—achieved 90% localization accuracy
- Developed **sensor fusion algorithms using Kalman filters** to combine MEMS-based INS and GPS data for precise real-time tracking in indoor/outdoor environments
- Designed **data ingestion pipelines via Bluetooth** for real-time telemetry processing and scenario reconstruction, enabling safety-critical testing and environment awareness for autonomous driving applications
- Built hybrid positioning system supporting scenario validation for autonomous vehicle testing and development

EDUCATION

Haldia Institute of Technology	West Bengal, India
Bachelor of Technology in Electronics & Communication Engineering, MAKAUT	*Jan 2015 – Jan 2019*
Kendriya Vidyalaya MEG & Centre	India
XII (AISSCE), CBSE	*Jan 2014 – Jan 2015*

PUBLICATIONS & RESEARCH

Design and Development of A Smart Parachute Control System for Military and Civilian Applications
Turkish Journal of Computer and Mathematics Education (TURCOMAT) 11 (1), 492-501
Performance Evaluation of Low-Cost RGB-Depth Camera and Ultrasonic Sensors
Lecture Notes in Electrical Engineering, Springer (2020), pp. 331-341, DOI: 10.1007/978-981-15-0829-5_33

AWARDS & ACHIEVEMENTS

Delivery Ninja Award – Infosys (Jan 2022): Recognized for exceptional project delivery and technical excellence
Rise Insta Award – Infosys (Apr 2021): Honored for innovative solutions and rapid problem resolution
Top 30 Finalist – DRDO DRUSE (Apr 2018): Defense Research & Development Organization Robotics and Unmanned Systems Exposition
Gold Medal – KVS National NCSC (Oct 2013): National Children's Science Congress
Silver Medal – IRIS National Fair: Intel Initiative for Research & Innovation in Science