Ashutosh Samal

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A dedicated individual Motivated by data and results, with four years of experience in the data domain. Ready to join a team of critical thinkers to build any data stack from scratch

EDUCATION

Indian Institute of Technology Patna

Online

Executive Master of Technology in Data Science and Engineering

2024 Jan - 2026 Jan

National Institute of Technology Karnataka

Bachelor of Technology in Electrical and Electronics

Karnataka, India 2017 Aug – 2021 April

Relevant Courses

Computer Science, Distributed Sytem, Data Structures and Algorithms, Object-Oriented Programming (OOP), Design and Analysis of Algorithms, Data Science, Machine Learning, statistics

EXPERIENCE

Walmart Global Tech, Bangalore: Data Engineer III 2021 July - Current

$\mathbf{ODS} \ (\mathbf{Operational} \ \mathbf{Data} \ \mathbf{Store}) \ | \ \mathit{Scala,Spark} \ \mathit{Streaming,GCP}$

- Migrated high priority batch jobs to structured streaming reducing ETA for crucial data by 80 percent.
- Enhanced monitoring, alerting and validation framework for streaming pipelines, which helped reduce pipeline breakdowns from 5 incidents to 0 monthly
- Architected a high-performance ETL streaming solution leveraging Spark to manage upwards of 10 terabytes of critical operational data; improved overall system reliability while enabling faster access to actionable insights for stakeholders.

Time series forcasting: | Python, EDA, Regression, statistics

- Designed and deployed a regression model to forecast the hourly fulfillment capacity of Walmart's distribution center based on available resources and other relevant parameters.
- Conducted Exploratory Data Analysis (EDA), which informed the development of the regression model for forecasting hourly fulfillment capacity.
- Implemented model and data drift checks to monitor performance and determine when model retraining is necessary to maintain accuracy over time.

$IMS(Inventory management systems) \mid Scala, Spark, Hive, GCP, Hudi$

- Set up multiple batch pipelines which handles 100 GB's of data every 15 Mins
- Built compression utility for raw data enabling org wide savings of 70% in storage costs
- Spearheaded the integration of Kafka Connect across the team, facilitating seamless streaming of over 10TB of data daily while introducing self-healing mechanisms that reduced system downtimes by an average of 30 minutes per incident.

Tech Modernisation: | Spark, Hive, GCP, scala, Python, Scripting

- Helped my team to Migrate 100+ Workflows running on cloudera's Hadoop cluster to google data proc cluster.
- Modified the existing data lake to reduce dependency on BigQuery by leveraging Apache Hudi, resulting in a reduction of cloud costs from \$200K/month to \$120K/month.

Walmart Global Tech, Bangalore: Data Science Intern 2021 Jan - April

- Designed a super-resolution model for text detection and extraction in collaboration with a data science team.
- Implemented a GAN network after researching and analyzing multiple papers to optimize model performance.
- Developed a custom loss function to compare generated and true images, capturing structural and perceptual differences more effectively. This improvement led to better training efficiency and enhanced model accuracy.

TECHNICAL SKILLS

Languages: Python, Scala, SQL

Big Data skills: Spark, Spark Structured streaming, Hadoop, Hive, Data modeling, Airflow, Kafka, PySpark, Kafka

Connect

Cloud Services: Google Cloud Platform (GCP), GCS, Dataproc, BigQuery, Spark Serverless Data science skills: Deep learning, statistics, Machine learning, NLP, keras, Data analysis

Database : Azure Sql, Hana, Cassendra