

AKASH S KUMAR

Senior Data Engineer | Data Platform & AI Systems

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PROFESSIONAL SUMMARY

Senior Data Engineer with 5+ years of experience building and operating scalable cloud data platforms across healthcare and e-commerce domains. Specialized in Azure, Databricks, Kafka, and modern data architectures, with strong ownership of end-to-end data products—from requirements and design to production and monitoring. Experienced in agentic AI and platform observability solutions that improve data reliability, operational efficiency, and decision-making.

CORE SKILLS

Data Platforms & Cloud: Azure (ADF, ADLS, Logic Apps), Databricks, Spark, Snowflake

Streaming & Orchestration: Kafka, Airflow

Data Engineering: Data Modeling, Data Warehousing, Delta Lake, CI/CD, GitHub Actions, Unix

AI & Analytics: Agentic AI, LLMs, RAG, Vertex AI, Graph Databases

Foundations: SQL, Python, Data Structures & Algorithms

PROFESSIONAL EXPERIENCE

Optum – UnitedHealth Group

Senior Data Engineering Analyst | May 2023 – Present - Owned end-to-end delivery of cloud-scale data engineering solutions, collaborating with business and technical stakeholders to design, build, and operationalize data pipelines under Agile delivery models. - Designed and managed Azure + Databricks ETL/ELT pipelines ingesting data from multiple sources and refreshing **200+ business-critical tables daily**, supporting downstream analytics and reporting. - Architected a **cloud-native data quality and alerting framework** adopted by multiple data engineering teams, significantly improving pipeline reliability, monitoring, and incident response; supported on-prem decommissioning and cloud migration. - Managed data platform infrastructure, access control, and security across **multi-tenant environments**, ensuring compliance, performance, and operational stability. - Built a **graph-based agentic AI observability system** using LangGraph and OpenAI to monitor workflows, analyze costs, and surface actionable operational insights across data pipelines. - Contributed to a **competitive intelligence chatbot** leveraging multimodal AI on Google Vertex AI and Gemini, enabling automated summarization across video, document, and image inputs.

Amazon Development Centre

Process Associate – Product Pricing | Mar 2019 – Jun 2021 - Owned pricing strategy and approval workflows for **12 Amazon physical retail stores** across Los Angeles and Chicago, supporting regional expansion and margin optimization. - Analyzed competitor pricing and market behavior for **300+ products daily**, influencing pricing decisions and audits. - Calculated and validated pricing for **400 key items weekly**, ensuring alignment with business and market objectives. - Mentored a team of **8 junior associates** on pricing workflows for US markets and contributed to SWOT analysis for international regions including Singapore, Mexico, and Canada.

PRODUCT & ANALYTICS EXPERIENCE

Simplilearn

Product Analyst Intern | Apr 2022 – Aug 2022 - Defined and tracked product performance metrics for EdTech platforms, partnering with product and engineering teams to drive data-backed decisions. - Conducted hypothesis validation and statistical analysis to identify drivers of customer engagement, completion rates, and NPS. - Collaborated with engineering to deliver a **unified source-of-truth dataset** capturing end-to-end customer learning journeys across multiple systems. - Automated product classification and alerting workflows, reducing manual effort and saving operational costs; built Tableau dashboards for CXO-level insights.

EDUCATION

Post Graduate Diploma – Big Data Analytics (AI & ML)

Goa Institute of Management | Jun 2021 – Mar 2023

PROJECTS

- **Insurance Claim Processing – Agentic AI:** Built a multi-tool agentic AI system to process insurance claims, automatically approving eligible cases or routing them for manual review.
 - **Healthcare Package Pricing Optimization:** Developed regression models to predict treatment costs, achieving an R^2 of 0.81 through robust data preparation and feature analysis.
 - **Appointment Prediction (Airlines & Hospitals):** Performed EDA and built predictive models (decision tree, logistic regression), achieving **87% recall** on key outcomes.
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CERTIFICATIONS

- Databricks Certified Data Engineer Associate
- Microsoft Azure Fundamentals (AZ-900)
- Databricks Lakehouse Fundamentals

- Generative AI Solutions Certification
- Python Essentials (IBM / edX)