

Akash K

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Summary

Data Scientist with experience delivering end-to-end solutions across **machine learning, optimization, and data engineering**. Skilled in building predictive models, designing custom heuristics, and architecting AI-driven systems for logistics, retail, and healthcare domains. Strong background in **time series forecasting, statistical analysis, and scalable data pipelines**, with hands-on expertise in Python, cloud platforms (AWS, GCP), and modern ML frameworks. Recognized for innovation and problem-solving in high-impact projects.

Skills

Languages: Python, SQL, Bash

ML: scikit-learn, XGBoost, PyTorch

Data: Pandas, Spark, Snowflake, Teradata

Cloud/DevOps: AWS, SageMaker, Bedrock, GCP, Docker, Git

Other: Statistics, Experimentation (A/B), Visualization

Experience

Innova Solutions

Data Scientist

Hyderabad, IN

Sep 2023 – Present

Projects

3D Bin Packing Optimization

Logistics Project Steel Pipe Manufacturing

2023

- Solved a long-standing **3D bin packing problem** that had remained unsolved for 2 years despite attempts with linear programming.
- Designed a custom heuristic using **First-Fit strategy combined with Genetic Algorithms**, achieving near-optimal packing efficiency.
- Eliminated dependency on expensive third-party solvers and reduced logistics costs significantly through improved container utilization.

Retail Navigator

AI Agent for Business Intelligence Retail Company

2024

- Architected an **agentic BI system** that ingests retail sales data and generates interpretable insights for analysts and decision-makers.
- Implemented custom **LLM orchestration (GPT-3.5)** with code execution sandbox and tool integrations built before modern agentic frameworks existed.
- Enabled BI teams to query complex datasets conversationally, reducing manual SQL/reporting overhead and accelerating decision-making.

Delivery Date Prediction with Time Series Models

Logistics Project Steel Pipe Manufacturing

2024-2025

- Analyzed delivery dates manually entered by operators, identifying significant **white noise and inconsistencies** that reduced forecasting accuracy.
- Proposed a novel **heuristic standardization model** to generalize noisy inputs and establish a robust baseline.
- Designed a hybrid approach to **regress on residuals** from the heuristic model, improving predictive power and enabling more reliable scheduling.

Healthcare Data Migration

Data Engineering Project Medical Care Company

2025

- Contributed to large-scale **data migration** following a company acquisition, integrating datasets across Snowflake and Teradata.
- Developed robust **Python ingestion pipelines** and automation scripts for data validation, transformation, and ETL workflows.
- Leveraged **AWS Glue** for orchestration and configured Snowflake + Teradata for accurate and secure data transfer.
- Implemented job scheduling and monitoring with **Control-M**, ensuring reliability and compliance in data workflows.

Education

Amrita University, B.Tech in Computer and Communication Engineering

2019 – 2023

Relevant Coursework: Probability & Statistics, ML, Data Mining, DBMS

Certifications

Google Cloud Professional Machine Learning Engineer

2025

Awards

Innovation Award Recognized for building automated ML pipeline adopted across teams

References available upon request.

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