

Akshata Madavi

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Summary

Graduate student in Software Engineering at San José State University seeking a Summer 2026 machine learning internship to build and deploy end-to-end ML and LLM applications. Skilled in Python, SQL, and modern ML frameworks (PyTorch, TensorFlow, scikit-learn, XGBoost) with experience in building real-time pipelines, RAG systems, and LLM tooling across GCP and AWS.

Education

San Jose State University, MS in Software Engineering	May 2027
College of Engineering Pune (COEP), BS in Computer Engineering	May 2018

Skills

- **Languages:** Python, SQL
- **Machine Learning & Analytics:** PySpark ML, XGBoost, PyTorch, TensorFlow, scikit-learn, evaluation (accuracy, precision, recall, F1, ROC-AUC), experimentation.
- **LLMs & GenAI:** Prompt engineering; **RAG** (LangChain/LlamaIndex); **Vector stores** (FAISS, Chroma, Pinecone); **Embeddings** (OpenAI, SentenceTransformers); **Evaluation** (Ragas/Promptfoo); **Serving** (OpenAI API, Vertex AI, Hugging Face); **Fine-tuning/LoRA**; **Monitoring/guardrails** (Langfuse, Guardrails)
- **Data & Platforms:** Pandas, NumPy, Tableau; BigQuery, MySQL, ClickHouse, Presto; Kafka, Spark, Dataflow, Pub/Sub, Cloud Run, Cloud Storage, Compute Engine
- **Orchestration:** Workflows, Cloud Composer, Airflow

Projects

- **VitalWatch – Real-Time Elderly Health Monitoring** (AI-Catalyst Hackathon 2025)

Built a real-time pipeline streaming wearable vitals into Kafka/KSQL with rule-based anomaly detection. Enriched anomalous events via Vertex AI LLM using patient profiles from BigQuery to generate contextual guidance. Delivered personalized voice alerts to patients and SMS alerts to emergency contacts within ≈10 seconds of detection.

- **Enterprise LLM/AI API Monitoring Platform** (LangChain, AWS, CI/CD, Docker)

Designing a secure platform to log and monitor enterprise LLM API calls with a focus on prompt privacy and compliance. Tracking prompt-response pairs using LangChain and vector stores to enable historical analysis and failure pattern detection. Generating user recommendations and alternative prompts based on evaluated LLM responses to improve quality and reliability.

Work Experience

Senior Data Engineer, LTIMindtree – Pune, India	May 2023 – Mar 2025
<ul style="list-style-type: none">Developed and optimized near real-time data pipelines to seamlessly migrate on-premises traditional databases to a centralized BigQuery platform, facilitating efficient analytical workloads and insights. Processed approximately 10 million records.Designed and implemented an event-driven pipeline to process and load complex, inconsistent data from multiple Excel sheets into GCP, reducing processing time from a week to under 10 minutes with parallel processing of 30 GB.	
Data Engineer, AI Adventures – Pune, India	Aug 2021 – Apr 2023
<ul style="list-style-type: none">Led migration of course data from Moodle to MySQL, enabling business intelligence views and driving a 20% increase in revenue.Expanded insights into sales, student retention, and curriculum performance, improving data-informed decisions across the organization.	

Data Engineer, STL – Pune, India	Jun 2018 – May 2021
<ul style="list-style-type: none">Built near real-time data pipelines to migrate on-prem databases (Oracle, SAP and Salesforce) to BigQuery, enabling efficient analytics and processing approximately 1 TB of data.Provided Tableau reports and data-driven insights to support business functions, including scrap detection and DOE analysis, driving process improvements and informed decision making.Collaborated with cross-functional teams to ensure effective data usage, driving operational outcomes and achieving business objectives.	
Data Engineer, STL – Pune, India	Jun 2018 – May 2021