

# Akshata Madavi

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## Summary

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**Graduate student in Software Engineering** at San José State University, seeking a summer internship to apply advanced proficiency in **data engineering, cloud platforms, and AI/ML solutions**. Passionate about building scalable data infrastructure, developing innovative **machine learning applications**, and contributing technical expertise in a dynamic, growth-focused team environment.

## Education

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**San Jose State University**, MS in Software Engineering Aug 2025 – Present  
Relevant Coursework - Data Analytics, Data Mining, Recommender Systems, Enterprise Software Platforms

**College of Engineering Pune (COEP)**, BS in Computer Engineering Aug 2014 – May 2018  
Relevant Coursework - Programming, Databases, Algorithms, Software Design

## Skills

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- **Languages**- Python, SQL
- **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)
- **Machine Learning & Analytics**: PySpark ML, XGBoost, Tableau, PyTorch, TensorFlow, scikit-learn, Pandas, NumPy
- **Data warehouse/Databases**- BigQuery, MySQL, ClickHouse, Presto
- **Data pipeline/Data architecture**- Dataflow, Cloudrun, Cloud Storage, Compute engine, Spark, Kafka, PubSub
- **Orchestration**- Workflows, Cloud Composer, Airflow

## Projects

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- **VitalWatch – Real-Time Elderly Health Monitoring (AI-Catalyst Hackathon 2025)**  
Built an end-to-end, real-time health monitoring system that streams wearable vitals into Kafka/KSQL, detects anomalies, & uses Vertex AI, ElevenLabs, & Twilio on GCP to deliver personalized multi-channel alerts within  $\approx 10$  sec.
- **Enterprise LLM/AI API Monitoring Platform** ( LangChain, LiteLLM, AWS, CI/CD)  
Designing a secure platform to monitor and audit API calls to enterprise LLM/AI providers, focused on prompt privacy & compliance. Features - historical prompt analysis, user recommendations, alternate prompt suggestions.

## Work Experience

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**Senior Data Engineer**, LTIMindtree – Pune, India May 2023 – Mar 2025

- 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**
- Established **orchestration** using **Google Workflow** to ensure smooth execution and management of data pipelines.

**Data Engineer**, AI Adventures – Pune, India Aug 2021 – Apr 2023

- Led migration of course data from Moodle to MySQL, enabling business intelligence views that **drove 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

- 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 successful operational outcomes, and achieve business objectives.