MOHAMMED ANSARI

San Jose, California

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Education

San Jose State University **Aug. 2023 – May 2027**
Bachelor of Science in Data Science — GPA: 3.94(Spring 25)— Cumulative: 3.56 *San Jose, California*
- **Coursework:** Data Structures and Algorithms, Advanced Machine Learning, Advanced Python, Processing Big Data, Object Oriented Design, Linear Algebra, Statistics, Calculus

Technical Skills

Programming & Core: Python, Java, SQL, Bash Scripting
Machine Learning & GenAI: TensorFlow, Hugging Face, OpenAI/Vertex AI APIs, LangChain, LangGraph
Data Science & XAI: Pandas, NumPy, Plotly, Scikit-Learn, SHAP, LIME, Evidently AI
Cloud & MLOps: AWS, Google Cloud, Docker, MLflow, Apache Airflow, GitHub Actions (CI/CD)
Frameworks & Concepts: RAG, Vector Search, Prompt Engineering, A/B Testing, Jira, FastAPI

Experience

Spartan Knowledge-Driven Intelligence & Learning Lab @ SJSU **Sep 2025 – Present**
Research Assistant *San Jose, California*
- Investigating techniques to improve **LLM reasoning and transparency**, addressing the "black-box" challenge faced by industries that demand highly reliable, interpretable, and verifiable AI decisions.
- Building and curating **knowledge graphs** and exploring reinforcement-learning and other model-training methods to inject structured knowledge into large language models for more accurate, traceable reasoning.
- Exploring real-world **healthcare applications of graph-guided LLMs**, such as rapid ER triage and patient-care decision support, while also evaluating secondary uses in **legal** contract analysis and **financial** credit-risk assessment.

Artificial Intelligence & Machine Learning Club @ SJSU **Feb 2025 – Present**
Lead Outreach Officer *San Jose, California*
- Lead a five-person team to organize events on generative models, responsible AI, and applied machine learning, helping students explore both theory and practice.
- Work with faculty and guest speakers on workshops and talks connecting academic learning to real AI/ML use cases.

Projects

DockFlow – Real-Time Bike Dock Availability Predictor ⚫ **Aug 2025 – Present**
Creator *San Jose, California*
- Developed a real-time **ML platform** predicting Bay Wheels dock availability 15 min ahead using live data & weather.
- Built a scalable **Apache Airflow ETL pipeline** on **GCS**/**BigQuery** to automate ingestion, cleaning, and feature engineering, delivering reproducible, low-latency updates for the time-series model.
- Implemented continuous **model-drift monitoring** with **Evidently AI** and deployed a containerized **FastAPI** service to **GCP Cloud Run** with CI/CD via GitHub Actions for automated retraining and seamless releases.

ClauseBit – AI-Powered Privacy Analyzer ⚫ ↗ **May 2025 – July 2025**
Creator *San Jose, California*
- Built an **AI-powered browser extension and web app** that scrapes and analyzes privacy policies to flag risky clauses based on user preferences, enabling real-time clause-level Q&A and concise legal summaries.
- Designed an **Adaptive RAG pipeline** with LLM APIs, vector search, and clause-relevance filtering to cut hallucinations by 40%, combining dynamic retrieval with vector confidence scoring and fallback rejection.
- Engineered a self-updating **knowledge base** with on-demand web scraping agents and Pydantic models, deploying the full-stack system on **GCP Cloud Run/Functions/Firestore** with async caching for sub-25s latency.

TripSafe – Traffic Accident Risk Prediction Tool ⚫ **Apr 2025 – May 2025**
Team Lead — Course Project – A Grade *San Jose, California*
- Led end-to-end development of a **multi-class accident risk classifier** using 7M+ U.S. records, handling data cleaning with **Bash**, feature engineering, and model deployment to guide traffic-safety and route-planning systems.
- Created interpretable risk labels (Low, Medium, High) through **K-Means** clustering and applied **PCA** to reduce dimensionality for efficient, high-performing multi-class classification.
- Tuned **Logistic Regression, SVM, XGBoost** with GridSearchCV and achieved **95%** accuracy using cross-validation.

Certifications and Awards

- **AWS Certified AI Practitioner** **Jun 2025**
- **Dean's List, San Jose State University** **Fall 2023 – Spring 2024**