

B. JANARDHANA BILIYA

AIML Engineer

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Location: Mangalore, Karnataka

Professional Summary

Results-driven **AI/ML Engineer** with **2+ years of experience** in building end-to-end machine learning systems, scalable MLOps pipelines, automated deployments, and cloud-native solutions on **Azure and AWS**. Skilled in model development, CI/CD automation, data engineering, ETL pipelines, workflow orchestration, and real-time monitoring. Strong foundation in **ML lifecycle management, serverless workflows, Kubernetes deployments**, and production-grade ML systems.

Skills

Programming: Python, PHP, SQL, React JS

Machine Learning & AI: Scikit-learn, TensorFlow, PyTorch, OpenCV, LLaMA, Hugging Face, NLP, Computer Vision

Agentic AI: Agent workflows, tool-use agents, planning agents, ReAct framework, agent pipelines, LangChain Agents, AutoGen

MLOps & DevOps: MLflow, Docker, Git, CI/CD (GitHub Actions, Jenkins), Apache Airflow, KubeFlow, Evidently AI, Prometheus, Grafana, YAML-based pipeline configuration

Cloud Platforms: Azure (Azure ML, Storage, App Service, Managed Endpoints, Data Lake, Data Factory), AWS (S3, SageMaker, Lambda, Glue, EventBridge, SNS, CloudWatch)

Data Engineering: Apache Kafka, Apache Spark (Basics), Spark SQL, ETL Pipelines

APIs & Tools: Flask, FastAPI, REST APIs, Streamlit, Power BI

Databases: PostgreSQL, MySQL, MongoDB

Soft Skills: Problem Solving, Communication, Team Collaboration, Analytical Thinking

Work Experience

AIML Engineer — MLOps (Contract)

Sep 2023 – Present

Mangalore Refinery and Petrochemicals Limited (MRPL), Mangalore, India

- Designed and maintained end-to-end **MLOps pipelines** for model versioning, deployment, monitoring, and retraining.
- Implemented **CI/CD pipelines** for ML workflows using **Docker, MLflow, and Airflow**.
- Automated **data ingestion and ETL pipelines** for production ML systems.
- Deployed and managed ML services using **Kubernetes** across **on-prem**.
- Enabled **model and system monitoring** using **Prometheus and Grafana** with metrics and alerts.

Projects

- **Kubernetes MLOps Pipeline (Kubeflow + MLflow + Prometheus):** Built an end-to-end MLOps system using Kubeflow for pipeline orchestration, MLflow for experiment tracking, Dockerized services, and Prometheus/Grafana for monitoring and automated retraining.
- **Airflow-Based ETL & ML Training Pipeline:** Designed workflow automation using Apache Airflow to orchestrate ingestion, preprocessing, feature engineering, model training, evaluation, and MLflow-driven deployment.
- **Model Monitoring with Evidently AI:** Implemented a monitoring setup to track data drift and prediction drift, integrated metrics into Prometheus, and visualized insights through Grafana dashboards.
- **AWS Serverless ETL Pipeline (S3 → Lambda → Glue → EventBridge → SNS):** Built an event-driven ETL pipeline using AWS services with automated notifications and streamlined data preprocessing.
- **Azure End-to-End MLOps Pipeline (Azure ML Studio):** Developed a complete MLOps workflow including ingestion, feature engineering, automated training, CI/CD, model registration, deployment, and performance monitoring.
- **AI Virtual Assistant (LLaMA 3.1 + Speech-to-Text + TTS):** Created an offline conversational assistant with real-time speech processing and a Streamlit interface.
- **AI Coding Assistant & Code Translator (CodeLlama + LLaMA3):** Built an AI-powered tool capable of explaining, debugging, optimizing, and translating code across languages.
- **Agentic AI for Automated Data Quality & Alerts (LangChain + ReAct + MLflow):** Developed an Agentic AI system that autonomously monitors refinery data, validates quality, and detects drift using ReAct reasoning. Integrated with MLflow and Evidently to read metrics, summarize issues, and generate automated alerts, reducing manual monitoring work.

Education

MSc in Software Technology

Nov 2021 – Aug 2023

St. Aloysius Institute of Management and IT, Mangalore

CGPA: 7.48

Certifications

- Microsoft Azure AI Fundamentals (AI-900)
- Azure AI Engineer Associate (AI-102)
- IBM Machine Learning with Python
- IBM Python for Data Science

Awards

First Principle & AI Hybrid Applications for Process Efficiency and Reliability Improvement

Awarded by Ministry of Petroleum and Natural Gas, Government of India.