Abde Ali Mewa Wala

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EDUCATION

M.S. Data Science, New Jersey Institute of Technology – Newark, NJ, USA	Jan 2024 - Dec 2025
B.E. Electronics & Communication, RGPV - India	Aug 2012 - Jun 2016

PROFESSIONAL SUMMARY

AI Engineer with 6+ years of DevOps and Cloud experience, now specializing in building intelligent systems using LLMs, RAG, LangChain, and LangGraph. Pursuing M.S. in Data Science to strengthen AI-first development with scalable infrastructure and data-driven decision-making. Passionate about unifying software, cloud, and agentic reasoning to deploy generative/Agentic AI solutions.

ACADEMIC PROJECTS

Wine Quality Prediction System | *PySpark, EMR, S3, EBS, IAM, Docker, Jenkins, Kubernetes, Java, AWS ReKognition*
- Developed an 85% accurate machine learning model and automated its training and deployment processes in a distributed EMR cluster.
- Deployed containerized Spark applications on Kubernetes (single-node and multi-node clusters) for scalable, fault-tolerant execution.

Machine Learning /Artificial Intelligence Projects | *Python, TensorFlow, Keras, scikit-learn, deep-learning CNN, RNN*
- **Developed a real-time Sign Language Recognition model** using **Deep Learning** (CNNs) in **Python, Pytorch** and **TensorFlow**, incorporating **GPU acceleration** and a labeled gesture dataset to achieve robust hand-gesture classification.

Generative/Agentic AI Projects | *LangChain, LangGraph, Hugging Face Transformers, FAISS, Streamlit, Pydantic*
- Developed a **LLM** powered **Retrieval-Augmented Generation (RAG)** system to enable chatbot-style Q&A over YouTube video transcripts using LangChain, FAISS, and Hugging Face, with enhancements like chunking, semantic search.
- Engineered an agentic pipeline to automate data ingestion, preprocessing, and EDA using LangGraph, SQLAlchemy, and Streamlit, enabling dynamic human approval and modular branching logic for intelligent data cleaning.

WORK EXPERIENCE

New Jersey Institute of Technology

Teaching Assistant, Newark, NJ, USA | 2024 – Present
- Contributed to Computer Systems & Networks as a Teaching Assistant by facilitating office hours, managing assignments, & resolving issues

LTI-Mindtree

Senior Software Engineer, Pune | July 2022 – January 2024
- Drove cloud-native architecture design for scalable microservices on AWS & OpenShift, spearheading the DevOps charter within the team
- Orchestrated CI/CD pipeline automation utilizing Jenkins, Docker, & custom Python scripts, streamlining manual processes by 35%
- Integrated Single Sign-On (SSO) via Windows AD, improving security and reducing redundant logins by 40%.
- Revolutionized testing by transitioning to cloud environments, unlocking parallel testing capabilities & slashing QA cycle time by 70%
- Achieved formal recognition for spearheading security, speed, & stability enhancements across application pipelines ensuring robust protection.
- Pioneered the deployment of an AI-powered ticketing chatbot on an internal portal, streamlining employee requests for high availability via OpenShift

Synechron Technology Solutions

Senior Associate, Pune | September 2021 – July 2022
- Engineered infrastructure provisioning using Terraform & orchestrated scalable deployments with Kubernetes & Helm to ensure seamless operations
- Strengthened platform security by implementing RBAC policies & optimizing deployment workflows using GitOps principles
- Executed the integration of Kong API Gateway for service routing & authentication, resulting in enhanced uptime & boosted API performance
- Enhanced release times by nearly a third by implementing continuous delivery integration & pipeline refactoring

Cognizant Technology Solutions

Senior Systems Engineer, Pune | February 2017 – September 2021
- Crafted robust CI/CD pipelines utilizing Jenkins Shared Libraries & Kubernetes for seamless microservices deployment
- Directed AWS infrastructure projects utilizing EC2, EKS, ELB, & IAM to enhance scalability via Auto Scaling Groups
- Streamlined provisioning & log analysis workflows by 20% through the deployment of Ansible & Bash
- Earned accolades from clients for pivotal cross-functional contributions across varied tech stacks
- Established cluster provisioning & Docker - Kubernetes deployments seamlessly utilizing Terraform for infrastructure-as-code.

TECHNICAL SKILLS

- **Cloud Infrastructure & DevOps:** AWS, Terraform, Jenkins, Docker, Ansible, Kubernetes, AWS EKS, OpenShift, Linux, CI/CD
- **Tools & Technologies:** Spark, Oozie, AWS EC2, Route53, S3, Redshift, Athena, API gateway, Lambda, Elastic Beanstalk, EMR, Hadoop, HDFS, Search Algorithms, Agile, Scrum, Jira, Git, Azure.
- **Programming Languages & Databases:** Bash script, Python, Groovy, SQL, RDS, Hadoop, Spark, MongoDB, Snowflake, Neo4j, R.
- **Machine Learning & Artificial Intelligence:** SciKit-Learn, PySpark, NumPy, Pandas, TensorFlow, and MLOps CI/CD pipeline
- **Generative AI & LLM Development:** LangChain, LangGraph, Hugging Face Transformers, Retrieval-Augmented Generation (RAG), Prompt Engineering, Agents, Vector DBs (FAISS, Pinecone), Semantic & Hybrid Retrieval, Contextual Compression, Guardrails, Human-in-the-Loop (HITL)
- **Application & Interface Development:** Streamlit, Gradio, FastAPI, SQLAlchemy, Pydantic, Output Parsers