Lakshmi Poojitha Lysetti

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PROFESSIONAL SUMMARY

Innovative AI/ML Engineer and Data Scientist with 2 years of experience delivering production-ready machine learning, deep learning, and generative AI solutions. Proficient in TensorFlow, PyTorch, LangChain, and RAG pipelines with LLM fine-tuning for domain-specific applications. Skilled in Python, SQL, Azure, and Databricks, with expertise in predictive modeling, vector databases, and analytics dashboards. Experienced in cloud-based MLOps, optimizing inference latency, and automating data workflows for scalable deployments. Strong track record of transforming large datasets into actionable insights that improve decision-making. Certified in Azure Fundamentals, Generative AI, and RAG Fine-Tuning.

TECHNICAL SKILLS

Programming & Scripting: Python, SQL, JavaScript, HTML, CSS, C#

Machine Learning & AI: TensorFlow, PyTorch, Keras, Scikit-learn, XGBoost, LightGBM, OpenCV, Hugging Face Transformers

Generative AI & LLMs: LangChain, Retrieval-Augmented Generation (RAG), Vector Databases (Pinecone, FAISS, Weaviate, Milvus), LLM Fine-Tuning, Prompt Engineering, ChatGPT API, OpenAI API

Data Engineering & Pipelines: Pandas, NumPy, Apache Airflow, Apache Kafka, Databricks, Azure Data Factory, Azure Synapse Analytics, Snowflake, dbt (Data Build Tool)

Data Visualization & BI: Power BI, Tableau, Matplotlib, Seaborn, Plotly, D3.js

Cloud & MLOps: Azure Machine Learning, Azure DevOps, AWS SageMaker, GCP Vertex AI, Docker, Kubernetes, MLflow, CI/CD Pipelines, GitHub Actions

Databases: MySQL, PostgreSQL, MongoDB, Neo4j, Redis, VectorDB

Developer Tools: Git, Jupyter Notebook, VS Code, Figma, Excel, Google Sheets

PROFESSIONAL EXPERIENCE

Associate Software Engineer Aug 2022 - Jul 2023
DXC Technology | Karnataka, India
- Delivered executive-ready Power BI dashboards by blending data from Azure Synapse and on-premises SQL sources, giving leadership real-time visibility into KPIs and improving decision speed by 30%.
- Led the migration of multi-terabyte datasets into Azure Data Lake, configuring Azure Data Factory pipelines to handle structured and semi-structured sources, which boosted analytics query performance by 40%.
- Reduced manual reporting work from hours to minutes by scripting Python-based data cleaning and transformation routines that ensured consistency across business-critical datasets.
- Built and fine-tuned XGBoost and TensorFlow models to forecast sales demand, enabling proactive stock planning that cut excess inventory by 12% and improved customer fulfillment rates.
- Integrated LangChain-based RAG workflows with Pinecone VectorDB to provide LLM-powered search and retrieval, increasing the accuracy of client-facing AI assistants to 85% on domain-specific queries.

Software Trainee Engineer Intern Jun 2021 - May 2022
Prorigo Software Pvt Ltd | Maharashtra, India
- Designed Figma-based interactive prototypes for compliance workflows, incorporating stakeholder feedback that reduced user onboarding time by 25%.
- Built responsive React.js components with HTML, CSS, and JavaScript, ensuring full WCAG 2.1 accessibility compliance and seamless performance across devices.
- Developed real-time compliance KPI dashboards using D3.js and Chart.js, enabling earlier risk detection and cutting resolution times by several hours.
- Optimized API query handling with backend teams, lowering dashboard load times from 1.2 seconds to under a second, improving user experience.
- Automated front-end deployments through Jenkins CI/CD pipelines, reducing release cycles from hours to minutes while ensuring error-free updates.

PROJECTS

AI-Powered Crop Disease Detection
- Developed deep CNN models (ResNet, EfficientNet, VGG) trained on the PlantVillage dataset, achieving 98% classification accuracy for multi-class plant disease detection.
- Built OpenCV-based preprocessing pipelines with resizing, normalization, and augmentation to enhance model robustness against variable lighting and background noise.
- Deployed inference through Flask + React web and mobile apps, integrating a LangChain RAG pipeline with agricultural datasets for treatment recommendations, and hosted via Azure ML scalable endpoints for low-latency usage in rural areas.

Financial Market Volatility Prediction
- Engineered market datasets from Yahoo Finance API with technical indicators (MACD, RSI, Bollinger Bands) to support predictive modeling of short-term volatility trends.
- Evaluated ARIMA, GARCH, and LSTM models, with a 2-layer Multivariate LSTM reducing RMSE by 12% compared to statistical baselines.
- Automated feature processing and model retraining in Azure Databricks, integrated results into Power BI dashboards, and deployed daily forecasts through Azure Functions for real-time trader access.

EDUCATION

Master of Science, Computer Science Aug 2023 - May 2025
California State University | Fullerton, CA

Bachelor of Technology, Computer Science Aug 2018 - Jun 2022
Dayananda Sagar University | Bangalore, KA

CERTIFICATIONS
- AZ-900 Azure Fundamentals - **Microsoft Certified**
- Generative AI Fundamentals - **Databricks**
- RAG and Fine-Tuning - **LinkedIn Learning**