FARHATHUL AFRAH S

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Skills

ML/AI: TensorFlow, Scikit-learn, LangChain, HuggingFace, FAISS, Pinecone, ChromaDB, Spacy, NLTK, Keras, Pandas, Numpy

Data/Backend: Python, FastAPI, SQL, MongoDB, AWS, MLFlow

Frontend: React.js, JavaScript

Other: Git, REST API, n8n

Professional Summary

Software Developer with 3 years of experience at Agentz, specializing in building AI-powered solutions by integrating LLMs, vector databases, and scalable cloud workflows. Skilled in bridging frontend development with backend ML systems, automation pipelines, and data visualization. Currently focused on advancing expertise in Deep Learning, NLP, and MLOps to design intelligent, production-ready AI solutions.

Work Experience

Agentz, Chennai | Software Developer | 01/2023 - Present

- Developed and enhanced frontend features to improve user experience, contributing to a 15% increase in user engagement.
- Integrated OpenAI and Pinecone vector databases with AWS Lambda, enabling AI-powered workflows that reduced query response latency by ~20%.
- Managed and automated engagement reports with Zoho Analytics, improving reporting efficiency by 40% and ensuring data-driven decision-making.
- Worked on voice agent Retell, deploying conversational AI solutions that improved customer call handling time by 25%.
- Designed and maintained automation workflows with n8n, leading to a 30% reduction in manual operations.
- Contributed across the development, testing, and deployment cycles in a fast-paced startup environment.

University College of Engineering, Kancheepuram

2018-2022

B.E. Computer Science Engineering

CGPA:8.56/10

Relevant Coursework: Object Oriented Programming, Databases, Statistics & Probability, Data Structures and Algorithms, Operating Systems, Computer Networks, Machine Learning, Data Mining, Information Retrieval, Image Processing

Projects

Cold Email Generator (ChromaDB + LangChain + LLaMA 3.1)

Built an AI-powered cold email generator using LangChain, ChromaDB vector database, and LLaMA 3.1, enabling personalized, context-aware email drafting for outreach automation.

News Article Chatbot (RAG)

Developed a Retrieval-Augmented Generation chatbot with LangChain, FAISS, and Streamlit, allowing users to query news articles by URL and receive grounded, context-aware answers using embeddings + LLMs.

• Log Classification with Hybrid Framework

Designed a log classification pipeline combining Regex, DBSCAN clustering, Sentence Transformers, Logistic Regression, and LLMs to detect anomalies, discover new log patterns, and improve classification accuracy.

LLM Fine-Tuning with LoRA

Fine-tuned LLaMA/T5 models with LoRA for text classification on arXiv papers, covering prompt engineering, loss calculation, and efficient parameter tuning, demonstrating expertise in modern LLM workflows.

Potato Disease Prediction App

Built a crop disease prediction system using TensorFlow, Keras, and CNNs. Deployed the model on Google Cloud Functions and integrated with a React Native + React web app hosted on AWS EC2. Enabled real-time disease detection with ~85% accuracy for farmers.

Languages

- **English** Fluent (Professional Proficiency)
- Hindi Fluent (Professional Proficiency)
- Tamil Native