Ahmed Aslam M

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PROFESSIONAL SUMMARY

AI/ML Developer with 2+ years of experience designing and deploying AI systems with a focus on LLMs, RESTful APIs, and scalable ML workflows. Skilled in Python, Flask, and SQL with hands-on experience in building generative AI applications using OpenAI, Hugging Face, and Gemini. Proficient in developing and integrating AI models into production using Flask APIs, FastAPI, MLflow, and cloud platforms like AWS and GCP. Collaborative team player with strong problem-solving skills and a commitment to continuous learning in cutting-edge AI advancements.

EDUCATION

B. S. Abdur Rahman Crescent Institute Of Science And Technology	Graduating May 2025.
B.Tech Artificial Intelligence And Data Science (GPA: 8.65 / 10.00)	8.65 /10.0 CGPA.
Chennai, Tamil Nadu, India	(Up to 8th Semester)
Sunshine Senior Secondary School – CBSE	
HSC - 88.2 percentage	Jun 2020- Mar2021
Apex Pon Vidyashram – CBSE	
SSLC -82.2 percentage	Jun 2018- Mar2019

TECHNICAL SKILLS

Programming Languages: Proficient in Python,C, SQL, R, JavaScript

AI/ML Tools: Scikit-learn, NumPy, Pandas, Neural Networks, OpenCV, LangChain, HuggingFace, MLflow, AWS SageMaker

Databases: MySQL, SQLite, Vector DB(Pinecone)

Web Development: HTML, CSS

LLMs: OpenAI, Gemini,Claude, LLaMA, Mistral

Concepts: NLP, Computer Vision, LLM, Agentic Models, Deployment, Networking, API Testing, Data Preprocessing, AI, ML, Neural Networks, Data Visualization, Data Analysis, Algorithms and Data Structures, Cloud Computing, Authentication (OAuth)

Frameworks: TensorFlow, PyTorch,Keras, Streamlit FastAPI, Flask

LLM Techniques: Prompt Engineering, Retrieval-Augmented Generation (RAG), Agentic AI

DevOps & Cloud: AWS EC2, Docker, Postman

Visualization Tools: Matplotlib, Seaborn, PowerBI, Tableau

Currently Learning: GitHub Actions, Langfuse, MCP Server, PostgreSQL

WORK EXPERIENCE

CV & ML Full Stack Developer Intern – HUM1AI *(Remote)* (stipend ₹20,000+ incentives)   Dec 2024 – Present

- Designed and deployed ML workflows for LLM-based projects on EC2 instances using AWS, with additional work on NVIDIA and GCP platforms.
- Designed and deployed generative AI pipelines using OpenAI, Gemini Pro, and LangChain for conversational and document-based automation systems.
- Built Flask and FastAPI-based RESTful APIs to serve LLM outputs, enabling seamless frontend integration and API consumption.
- Developed MLOps pipelines for continuous integration, testing (unit + integration) and deployment of machine learning models using SageMaker and Postman.
- Built and maintained RESTful APIs to serve model predictions and monitor system health using logging and evaluation metrics.
- Used OpenAI Assistants and Agents to enable conversational AI capabilities in client-facing applications.
- Implemented OAuth authentication for secure email-based access in AI-powered assistance chatbots.
- Built generative avatars from user photos for personalized multimodal experiences.
- Used Hugging Face for fine-tuning, deploying, and integrating transformer models in NLP tasks.
- Used LangChain in standalone projects for prompt chaining and contextual workflows, and Pinecone for semantic retrieval in LLM applications.
- Delivered proof-of-concept models tailored to clients, focusing on agentic models for autonomous AI systems.
- Conducted unit and integration testing for API and model endpoints to ensure reliability and performance.
  Mentor: Manjula, Coordinator – eznurture@gmail.com

AI & ML Engineer Intern – Tamizh - TN Startup *(In-office)*   Jun 2024 – Present

- Worked on the smart specs project under the AI and ML team.Developed object detection models using Roboflow and Labelbox datasets and fine-tuned the Florence model for enhanced accuracy in computer vision tasks.
- Implemented multilingual (English, Tamil, Hindi, Telugu) OCR using EasyOCR for robust image-to-text conversion.
- Designed a Mediapipe-based model for hand gesture recognition and cursor control with click functionality.
- Built a client-server architecture for deploying and testing object detection models using GPU acceleration.
- Conducted testing and debugging for robust system performance and optimized algorithms for wearable devices.
- Documented processes and results for knowledge sharing.
  Lokeshwaran E, Managing Partner, TAMIZH lokeshwaran.tamizh@proton.me

PROJECTS

Real-Time ISL Gesture Recognition & 3D Avatar System– Mediapipe/HF/LSTM/iClone(IEEE (DOI: pending))

- Built an AI system for real-time ISL gesture recognition using LSTM and computer vision, achieving 94% accuracy.
- Enabled multilingual speech-to-sign translation via a 3D avatar with Motion Layer Animation.
- Deployed a modular pipeline with MediaPipe, YOLO, and Streamlit for seamless bidirectional sign-speech interaction.

Homicide Prediction System– XGB/ExtraTrees/CatBoost/RandomForest (IEEE (DOI: pending))

- Developed a predictive model for analyzing homicide trends using geospatial and temporal variables.
- Ensemble learning techniques, including XGB, ExtraTrees, and CatBoost, in a stacking model with RandomForest as the meta-classifier.
- Achieved 85.81% accuracy, with significant improvements in precision and recall.

AI-Emotion-Recognition System – Streamlit / FastAPI / CNN-LSTM

- Advanced end-to-end emotion recognition system using a trained CNN LSTM model.
- Backend (Fast API): Predicts emotions, provides book recommendations, and AI advice using Google Generative AI (Gemini).
- Frontend (Streamlit): Enables image uploads, emotion visualization, and AI chat.
- Postman: Used for API testing (emotion prediction and chat endpoints).

CERTIFICATIONS

- AWS AI & ML Scholars, Completed Udacity & AWS certification program focused on foundational and applied AI/ML techniques.
- LangChain for LLM Application Development, Use the powerful and extensible LangChain framework, using prompts, parsing, memory, chains, question answering, and agents.
- OpenCV Bootcamp & GUVI Webinar on DevOps, Completed webinar in essential configuration management techniques and basic DevOps workflow, along with foundational skills in OpenCV from OpenCV.org.
- Forage – Tata Data Visualization & Data Science Program, completed data visualization tasks for Tata using Power BI, improving decision
- Participated in the Conference on Artificial Intelligence Conducted by Confederation of Indian Industry – Tamil Nadu Technology Development Promotion Centre.