JIGNESH SHIYAL
Data Scientist

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Portfolio website: https://jigneshshiyal.github.io/

SUMMARY

Data Scientist with **3 years** of experience building **AI/ML-powered production systems** in NLP, Speech Recognition, Computer Vision, and Document Intelligence. Strong expertise in fine-tuning transformer models (**OpenAI Whisper**), optimizing inference with **ONNX**, and deploying scalable pipelines using **Docker, FastAPI, Kubernetes**, and **AWS**.

SKILL

Languages: Python, SQL, JavaScript
AI Tools and Framework: LangChain, LangGraph, AutoGen, Ollama, LangFuse, LLM Fine-tuning
Cloud & Monitoring: AWS (EKS, EC2, S3), Grafana, Loki
Machine Learning / Deep Learning: CNNs, ONNX, RAG, Mediapipe, Speech-to-Text, Text Classification, Transformers
Backend & Deployment: FastAPI, Streamlit, Docker, RabbitMQ
Databases: ChromaDB, PostgreSQL, MySQL, MongoDB

WORK EXPERIENCE

CREDITT+   INDIA
Data Scientist   Jan 2024 – Present
- Built an AI-driven **bank statement analysis pipeline** using **Table Transformer + DistilBERT**, achieving **4× faster processing** and **35% cost savings** by eliminating third-party APIs. Enhanced **KYC face matching** with **CNN + Mediapipe**, improving onboarding speed by **40%** and accuracy by **25%**.
- Developed a **real-time video–audio compliance system** integrating **Face Recognition + Whisper**, reducing latency by **2×** and increasing accuracy by **20%**, fully in-house (no external providers).

CYBERCOM CREATION   INDIA
Software Engineer   Aug 2023 - Jan 2024
- Designed **time-series demand forecasting** and **product-matching pipelines** (MobileNet, InceptionNet), increasing inventory accuracy by **30%** and cutting manual catalog effort by **50%**.
Software Engineer Intern   Feb 2023 - Aug 2024
- Developed a full-stack **event management system** using **Django + JavaScript** for scheduling and registrations. Integrated **Razorpay** for real-time, secure payment processing.

PROJECTS

FACEKYC - [Mediapipe, Javascript, Face-matching, ChromaDB]   Github Link
- Browser-based **KYC verification system** with selfie guidance and face matching. **JavaScript**-driven frontend captures user selfies and guides framing and alignment.

SMARTRESUMEAGENT - [Langchain, Langfuse, FastAPI, ChromaDB, Javascript]   Github Link
- AI-powered **multi-agent** resume customizer that extracts, ranks, and tailors resumes to job descriptions with ATS-aware optimization

FASTTUNEWHISPER - [Pytorch, Whisper, CTranslate2, FastAPI, Streamlit]   Github Link
- Production-ready speech-to-text system **fine-tuned** on **Whisper** (small), optimized using **CTranslate2**, with **FastAPI** backend and Streamlit frontend. Word Error Rate (**WER**) dropped from **~114.75% to ~55.60%** post fine-tuning.

EDUCATION

GOVERNMENT ENGINEERING COLLEGE BHAVNAGAR [B.E - 8.7/10.0]   Jul 2019 - Jul 2023

ACHIEVEMENT

AZADI KA AMRIT MAHOTSAV HACKATHON - 2022