# 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
**Cloud & Monitoring**: AWS (EKS, EC2, S3), Grafana, Loki
**Machine Learning / Deep Learning**: Whisper, CNNs, ONNX, Face Recognition, Table Extraction, Image Embeddings, Mediapipe, Speech-to-Text, Text Classification, Semantic Search, Transformers
**Backend & Deployment**: FastAPI, Streamlit, Docker, RabbitMQ
**Databases**: ChromaDB, PostgreSQL, MySQL, MongoDB

## WORK EXPERIENCE

**CREDITT+**                                                                                                            INDIA
Data Scientist                                                                                          Jan 2024 – Present
- Bank Statement Analysis – **AI pipeline** (Table Transformer + DistilBERT), **4× faster**, **35% cost savings**, no third-party APIs. in Face Matching (KYC), use CNN + Mediapipe verification, **40% faster**, **25% more accurate** onboarding.
- Video-Audio Compliance – Real-time system (Face Recognition + Whisper), **2× lower latency**, **20% better accuracy**, no external providers.

**CYBERCOM CREATION**                                                                                                  INDIA
Software Engineer                                                                                      Aug 2023 - Jan 2024
- Developed time-series demand **forecasting models** and product-matching pipelines **(MobileNet, InceptionNet)**, improving inventory **accuracy by 30%** and reducing manual catalog effort by **50%**.

Software Engineer intern                                                                               Feb 2023 - Aug 2024
- Developed an event management system with Django + JavaScript to handle scheduling and registrations. Integrated Razorpay payments for real-time, secure transactions.

## 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**