## JIGNESH SHIYAL

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## **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, DistilBERT, CLIP), optimizing inference with ONNX, CTranslate2, and deploying scalable pipelines using Docker, FastAPI, Kubernetes, and AWS.

#### **SKILL**

Languages: Python, SQL, JavaScript

Cloud & Monitoring: AWS (EKS, EC2, S3), Grafana, Loki

Machine Learning / Deep Learning: Whisper, DistilBERT, CLIP, CNNs, ONNX, CTranslate2, Face Recognition, Table

Extraction, Image Embeddings, Mediapipe, Speech-to-Text, Text Classification, Semantic Search, Transformers

Backend & Deployment: FastAPI, Streamlit, Docker, Kubernetes (AWS EKS), RabbitMQ

Databases: ChromaDB, PostgreSQL, Vector Database

### **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
- Face Matching (KYC) 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

Data Analyst Intern

Feb 2023 - Jan 2024

- Forecasting demand Developed **time-series** demand forecasting models in Python for bakery products across regions, improving inventory planning **accuracy by 30%**.
- Product matching Implemented image similarity and product-matching models with MobileNet and InceptionNet, reducing manual catalog mapping effort by 50%.

#### **PROJECTS**

# FACEKYC - [ Mediapipe, Javascript, Face-matching, ChromaDB ]

<u>facekyc</u>

• 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 ]

**SmartResumeAgent** 

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 ]

**FastTuneWhisper** 

• 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**