

MOHD SHAHID

Computer Vision | Machine Learning Engineer

Hyderabad, India | +91 8193-039-813 | msaligs@gmail.com | [linkedin](#) | [github](#)

SUMMARY

Computer Vision Engineer with **1.5+ years of experience building and deploying real-time computer vision systems for production environments**. Experienced in computer vision solutions from **data/model development through deployment and real-time video analytics**. Hands-on experience working with **large-scale multi-camera systems**, developing reliable vision pipelines, and solving practical challenges around **object detection, tracking, OCR, and video processing**. Proven ability to work across both **ML/CV development and production engineering**, with a focus on building scalable and robust systems.

PROFESSIONAL EXPERIENCE

Computer Vision Engineer | Nabeh

Mar 2025 – Present | Hyderabad, India

- **Collected, curated, and prepared domain-specific image datasets and trained YOLO models**, achieving **96.35% mAP**, for detecting baggage and airport resources and deploying the models in real-time video analytics pipelines.
- Developed and deployed **real-time computer vision pipelines across 26 CCTV cameras and 7 DeepStream containers**, achieving under **100ms latency** using **Python, NVIDIA DeepStream, YOLO, and OpenCV** for airport baggage operations.
- Integrated **NemotronOCR** to extract IDs from **ULDs, baggage carts, and transporters** in real-time video streams.
- Built production workflows for **object detection, multi-object tracking, OCR, ROI-based analytics, and session management**, converting frame-level detections into structured operational events.
- Integrated distributed CV services using **Apache Kafka, Redis, Docker, and POSIX shared-memory IPC** for low-latency communication between GPU inference and Python-based processing services.
- Implemented **tracking-ID recovery, OCR validation, fuzzy deduplication, and multi-frame voting** to improve object identity and resource identification under occlusion and noisy camera conditions.
- Engineered **concurrent frame and OCR processing** using thread pools and session-based processing to support real-time workloads across multiple camera streams.
- Automated deployment and camera-specific configuration of multi-service CV infrastructure using **Docker Compose and Python-based configuration generation**.

PROJECTS

Deep Learning — Messy Mashup Music Genre Classification | [Kaggle Competition](#)

PyTorch, Deep Learning, Audio Classification

- Developed a **10-class music genre classification model in PyTorch** using instrument-separated **drums, vocals, bass, and other stems**.
- Designed the training and evaluation pipeline to handle **cross-song mashups, tempo variations, and added noise**, achieving a **0.87498 Kaggle leaderboard score**.

Bank Telemarketing Success Prediction | [Kaggle Competition](#)

Python, Scikit-learn, Machine Learning

- Developed a **binary classification model** to predict bank term-deposit subscriptions using customer and marketing campaign features.
- Evaluated and optimized model performance using **macro F1-score**, accounting for **class imbalance**, and achieved a **0.75004 Kaggle leaderboard score** which helped me get grade A.

Home Services Marketplace [github](#)

Python, Flask, SQLAlchemy, Vue 3, Redis, Celery, Docker

- Built a role-based service marketplace for customers, professionals, and admins with booking and assignment workflows.
- Developed REST APIs, relational data models, background jobs, caching, and scheduled notifications using Flask, SQLAlchemy, Celery, and Redis, able to get grade S.
- Containerized the application using **Docker Compose**, orchestrating the Flask backend, Vue frontend, Redis, Celery workers/beat.

TECHNICAL SKILLS

Programming: Python, SQL, Vue

Computer Vision & Deep Learning: PyTorch, YOLO, OpenCV, scikit-image, NVIDIA DeepStream, TensorRT, ONNX, NemotronOCR

Computer Vision: Object Detection & Tracking, Multi-Camera Video Analytics, Real-Time Inference, Image Processing, GenAI

Distributed Systems & APIs: Apache Kafka, Redis, POSIX Shared Memory, IPC, FastAPI, REST APIs

Deployment & Tools: Docker, Docker Compose, Linux, Git

EDUCATION

B.Tech in Computer Science

MANUU Hyderabad, Graduated: 2024

Diploma in Data Science - 2026,

Diploma in Programming - 2025

Indian Institute of Technology, Madras