

Kondepudi Venkata Durga

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PROFESSIONAL SUMMARY

AI/ML Engineer specializing in **Computer Vision and Deep Learning** with 2+ years of experience developing and deploying production-scale AI systems serving **23M+ users across 22 states**. Skilled in **image processing, classification, object detection, segmentation, CNNs, PyTorch, TensorFlow, OpenCV, and YOLO**, with experience in end-to-end vision pipelines and low-latency inference.

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript

Data Science & AI Frameworks: PyTorch, TensorFlow, NumPy, Pandas

Computer Vision: OpenCV, YOLOv8, CNNs, Image Classification, SSD, Object Detection, Image Segmentation, U-Net, Mask R-CNN, OCR, Image Processing, Feature Extraction, DWT

Data Processing: Image/Video Preprocessing, Data Augmentation, Annotation, Dataset Preparation, Model Evaluation

Generative AI & LLMs: LangChain, LangGraph, Ollama, Retrieval-Augmented Generation (RAG), Prompt Engineering

Infrastructure, MLOps & Databases: Docker, Podman, FastAPI, Flask, Git, ChromaDB, Redis, PostgreSQL, Linux

WORK EXPERIENCE

Software Developer II (AI/ML & MLOps Engineer)

Bhubaneswar, India

Akal Information Systems Ltd (Client: National Informatics Centre, Govt. of India)

05/2024 – Present

- Architected a Python image-processing pipeline handling **400,000+ daily requests**, optimizing inference latency for CPU-only production infrastructure.
- Integrated **INDOCS**, an AI document intelligence system, into Vahan, processing millions of national identity records through automated image/document analysis.
- Developed **object detection and image classification** solutions using CNNs and YOLO, covering preprocessing, augmentation, evaluation, and inference optimization.
- Deployed a deep learning **Seatbelt Detection** module achieving **92% accuracy** for production rollout in Odisha ITMS.
- Built **ACCID**, a Python/FastAPI AI microservice with Docker for real-time traffic incident detection and REST API integration.

KEY PROJECTS

SPoD: PUCC 2.0

08/2024 – Present

Tech Stack: Deep Learning, Discrete Wavelet Transform (DWT), Python, FastAPI

- Developed an AI-powered vehicle image anti-spoofing pipeline using **image processing, feature extraction, and deep learning** that reduced verification fraud by **80%** across deployments in **22 states**.
- Processed over **8.7 million** production images, successfully identifying **6.5M** genuine submissions (**74.8%**) while preventing **2.2M** spoofed attempts (**25.2%**).

iDetect: Contactless Learner's License (CLL) System

05/2024 – Present

Tech Stack: Face API, TensorFlow.js, Python, JavaScript

- Designed an AI-based remote proctoring system using TensorFlow.js facial verification to secure browser-based learner's license examinations.
- Supported over **23 million** applicants across **21 Indian states** in the Sarathi gateway, blocking approximately **20%** of identity fraud attempts.

EDUCATION

B.Tech in Computer Science Engineering (AI & ML)

C V Raman Global University, Odisha

Cumulative Grade Point Average (CGPA): **9.17 / 10.0**

08/2020 – 05/2024

Intermediate Education

Sri Chaitanya Junior College, Telangana

Final Board Score: **89.6%**

06/2018 – 06/2020

PUBLICATIONS & HONORS

- **IEEE Publication:** *Enhancing Monkeypox Skin Lesion Detection*. Automated feature extraction achieving 97% accuracy.
- **Technology Saba Award (10/2026)** – Awarded for Idetect National Presence.
- **ETGovTech Awards 2026** – Recipient for AI-driven public sector digital transformation.
- **6th Digital Transformation Summit & Awards 2025** – Honored for large-scale AI deployments.