

Sasank Nukala

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PROFESSIONAL SUMMARY

AI and Software Engineer specializing in computer vision, sports analytics, and backend systems. Experienced in building real-time vision pipelines using YOLO and TrackNet, and deploying scalable REST APIs with Django REST Framework. Strong in Python, deep learning, and transforming raw video data into actionable insights.

EDUCATION

Lovely Professional University

B.Tech in Computer Science and Engineering | Minor in AI | GPA: 3.8/4.0

Phagwara, India

Sep 2022 – July 2026

ANU Junior College

Intermediate in MPC | Percentage: 92.83%

Vijayawada, India

Aug 2020 – May 2022

EXPERIENCE

AI Engineer Intern

SmartX Technologies

Jan 2025 – Sep 2025

Bengaluru, India (Remote)

- Built a real-time tennis ball tracking pipeline using YOLO and TrackNet, improving detection accuracy by 30% across match footage
- Designed a bounce detection system with interpolation and temporal filtering, reducing false positives by 20%
- Exposed model outputs via REST APIs for real-time analytics and match insights.

Python Developer Intern

Infosys Springboard

Mar 2024 – Jun 2024

Bengaluru, India (Remote)

- Developed a secure and scalable payroll backend using Django REST Framework. Implemented JWT-based authentication and role-based access control.
- Automated salary computation and report generation using APScheduler. Utilized Swagger documentation and APScheduler automation, ensuring accurate salary processing report generation.

PROJECTS

Tennis Match Analysis | YOLOv8, TrackNet, OpenCV

Jan 2025 – Aug 2025

- Applied TrackNet for ball detection and YOLOv8 for player detection, achieving 90% accuracy in real-time match tracking. Designed homography mapping to standardize court orientation, improving analysis consistency. Deployed video-to-CSV pipeline, providing structured match data for performance analysis and visual output.

ML Drift Monitoring Pipeline with Automated Retraining | Python, FastAPI, Celery

Mar 2024 – Jul 2024

- Implemented statistical drift detection pipelines for detecting feature distribution shift and prediction drift in production ML systems. Automated model performance monitoring, drift thresholding, and retraining triggers to ensure model stability over time. Implemented dataset versioning and model artifact management for reproducibility.

Resume Intelligence & Job Recommendation Platform | NLP, Langchain, pydantic

Aug 2023 – Dec 2023

- Engineered NLP pipelines for entity extraction, semantic embedding generation, and resume summarization using transformer-based models. Similarity search pipelines for job-to-candidate matching using vector embeddings and ranking metrics. LinkedIn profile ingestion and enrichment to enhance candidate profile completeness.

SKILLS

Languages: C/C++, Java, Python, SQL (MySQL, PostgreSQL)

Frameworks: PyTorch, Scikit-learn, Mediapipe, OpenCV, LangChain, Django REST Framework, FastAPI

Developer Tools: Kiro IDE, IntelliJ, Git, Github, Roboflow, HuggingFace, Ollama, Postman

Soft Skills: Critical Thinking, Effective Communication, Problem Solving, Team Management

ACTIVITIES AND INTERESTS

- Curating and labeling computer vision datasets for AI research and model training
- Actively reading technology blogs and research papers to stay updated with emerging trends and innovations.
- Building AI side projects and production prototypes (computer vision, NLP, MLOps automation)