

MAYURESH MORE

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PROFILE SUMMARY

AI & Robotics Engineer specializing in **computer vision**, **SLAM**, and **autonomous navigation** with **ROS 2** and **YOLO pipelines**. Proven track record deploying production ML systems using **FastAPI**, **AWS MLOps**, and **edge optimization (Raspberry Pi, Coral USB)**. Hands-on experience with UAV systems (**ArduPilot SITL**) and high-fidelity simulations (**Gazebo, Isaac Sim, Mujoco**) to deliver real-world autonomous solutions.

EDUCATION

University of Mumbai

Bachelor of Engineering - Computer Science

- GPA : 8.04/10

Mumbai

12th July 2023

WORK EXPERIENCE

Witsense AI

AI Engineer

Remote

March 2024 - September 2025

- Engineered an **end-to-end auto-annotation system** using GroundingDINO + Grounded-SAM, generating production-ready YOLO datasets with integrated YOLOv8/YOLO11 pipelines and downloadable PyTorch weights.
- Architected **serverless MLOps infrastructure** (AWS SQS, Lambda, Batch, S3) and built **FastAPI + PostgreSQL REST APIs** for image uploads, automated annotation workflows, and GPU training pipelines — reducing deployment latency by **40%**.
- Trained **custom YOLOv8/YOLO11 detectors** (door handles, top-view people, uncommon objects), achieving **99.5 mAP@50** through optimized dataset annotation and fine-tuning.
- Optimized models for **edge devices** (Raspberry Pi 5, Coral USB) — reducing size by **80%** and achieving **5× faster inference**.
- Developed a **ROS 2-based Search & Rescue UAV** integrating Gazebo/ArduPilot SITL, Cartographer SLAM, and a custom Ground Control Station with telemetry + CV pipelines.
- Built a **high-performance upscaling pipeline** with Real-ESRGAN + FSRCNN, improving PSNR by **25%** over traditional methods.
- Led daily stand-ups as **Scrum Master** and mentored **2 junior engineers** through feature development and delivery.

TECHNICAL SKILLS

- **Programming & Backend:** Python, FastAPI, PostgreSQL
- **Computer Vision:** OpenCV, NVIDIA DeepStream, YOLOv8/YOLO11, Object Detection/Tracking, Model Training & Quantization, Image Super-Resolution
- **Cloud & MLOps:** AWS (S3, SQS, Lambda, Batch, ECR), Docker, Git
- **Robotics & UAVs:** ROS 2, Gazebo, ArduPilot SITL, Nav2, Cartographer SLAM, Isaac Sim, Mujoco, MAVLink
- **ML Frameworks & AI:** PyTorch, Reinforcement & Imitation Learning, VLA Models, Hugging Face
- **Tools & Hardware:** VS Code, Rviz 2, RunPod, Raspberry Pi 5, Coral USB

PERSONAL PROJECTS

- Auto-rickshaw detector : Engineered a YOLOv8-based object detection model for auto-rickshaws, achieving high accuracy by collecting and manually annotating a custom dataset.
Github link: <https://github.com/MayureshM0re/Yolov-8-auto-rickshaw-detection>
- QR Code detector : Developed a Python script to generate a large dataset of custom QR codes, which was used to train a YOLOv11 model for reliable QR code detection in a variety of images.
- 3D Model Construction : Trained a custom model for 3D model generation and evaluated pre-trained models using the PyTorch3D library, demonstrating proficiency in advanced computer vision techniques.

CERTIFICATIONS & AWARDS

- Hugging Face LeRobot Hackathon : Participated in the LeRobot Worldwide Hackathon 2025 organized by Hugging Face, focused on developing a model for Reinforcement Learning in simulation.
- NVIDIA : *Getting Started: Simulating Your First Robot in Isaac Sim*
- [DeepLearning.AI](#) : Agentic Knowledge Graph Construction

LEARNING & DEVELOPMENT

- Expanding knowledge in TensorFlow for deep learning workflows and OpenVINO for edge AI inference optimization.
- Actively building expertise in custom **Nav2 planner and controller development (C++)**.