

Deepak R

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PROFESSIONAL SUMMARY

Dedicated B.E. Robotics and Automation student (9.2 CGPA) with a strong foundation in ROS/ROS 2, C++, and Python. Practical experience in autonomous systems, having explored navigation stacks and sensor fusion during my internship with Tamizhan Skills. Eager to apply my hands-on experience with hardware-software interfacing (ESP8266, Arduino) and rapid prototyping to research in robotics, mechatronics, and control systems.

EDUCATION

B.E. Robotics and Automation

Dhaanish Ahmed College of Engineering (Anna University)

May 2024 – May 2028

Chennai, India

- **CGPA:** 9.2/10.0
- **Relevant Coursework:** Industrial Robotics, Digital Circuits, Artificial Intelligence, Machine Learning, Python Programming, Embedded Systems.

WORK EXPERIENCE

Machine Learning & AI Intern

Tamizhan Skills (RISE 3.0 Program)

Mar 2026 – Mar 2026

Remote

- Training Convolutional Neural Networks (CNNs) for Plant Disease Detection and Handwritten Digit Recognition (MNIST) using TensorFlow/Keras.
- Developing NLP and machine learning classifiers for Fake News Detection.

AI for Autonomous Systems Intern

Tamizhan Skills (RISE 4.0 Program)

Dec 2025 – Jan 2026

Remote

- Explored ROS navigation stacks and sensor fusion techniques essential for unmanned vehicle operation.
- Gained practical exposure to deploying AI models for real-time decision-making in autonomous environments

Engineering Intern

Chennai Port Authority

Dec 2025

Chennai, TN

- Diagnosed and serviced diesel locomotive engines, gaining hands-on mechanical experience crucial for hardware-software robotic integration
- Collaborated with senior engineers to understand large-scale industrial automation and port logistics workflows.

PROJECTS

Smart Traffic Management System (SIH 2025) | AI, Computer Vision

Nov 2025

- Participated in the Smart India Hackathon 2025 (Problem ID: SIH25050) to address urban congestion.
- Designed an intelligent traffic control loop using computer vision to dynamically adjust signal timings based on real-time vehicle density.

Real-Time Object Detection | Python, YOLO, MediaPipe

Dec 2025 – Jan 2026

- Implemented computer vision pipelines using YOLO and MediaPipe for high-speed object detection
- Optimized inference time for deployment on edge devices, ensuring high accuracy in dynamic environments

TECHNICAL SKILLS

Languages | Python, C/C++, SQL

Frameworks/Library | ROS/ROS 2, TensorFlow, OpenCV, MediaPipe, YOLO, Scikit-learn.

Concepts | Machine Learning, Computer Vision, Deep Learning (CNNs), MLOps, Cloud Computing.

Hardware/Tools | ESP8266 (NodeMCU V3), Arduino, Linux, Git, Visual Studio Code, Fusion 360.