

K B Venkataramana

Software Developer | Robotician | Computer Vision | Data Science

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Professional Summary

Detail-oriented and innovative Software Developer with experience in Computer Vision, Robotics, and Data Science. Proven expertise in developing autonomous systems, AI-powered applications, and IoT devices. Adept in Python, Java, and C++, with strong problem-solving and algorithmic skills. Seeking to leverage technical expertise in a dynamic development environment.

Education

Bachelor of Engineering in Electronics and Communication Engineering

R.M.K Engineering College, Chennai, Tamil Nadu

August 2022 – May 2026

CGPA: 8.1

Experience

Data Science Intern

A2Z 4.0 Research and Analytics Limited

May 2023 – August 2023

- Developed a Convolutional Neural Network (CNN) model to predict Active Pharmaceutical Ingredient content in medicinal drugs with a mean error of 4%.
- Web scraped pharmaceutical data for model training, contributing to predictive accuracy improvements.

ROS Developer

Karthikesh Robotics Private Limited

January 2023 – April 2023

- Designed and developed an Autonomous Guided Vehicle (AGV) for restaurant supervision, integrating ROS2 for real-time navigation and task automation.
 - Led a team during the e-Yantra Hackathon, successfully competing against national teams and presenting innovative solutions.
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Technical Skills

Languages: Python, Java, C++, JavaScript

Frameworks: TensorFlow, OpenCV, ROS2, Django

Libraries: Scikit-Learn, NumPy, Pandas, Matplotlib, MediaPipe, React, BeautifulSoup

Operating Systems: Windows, Ubuntu

Tools: YOLO V8, Gazebo, SLAM, Path Planning Algorithms

Projects

Personal Protection Equipment Detection System

- Developed a computer vision system to monitor if construction workers wear necessary safety equipment. Trained a YOLO V8 model with over 1300+ data samples.
- Tools: OpenCV, YOLO V8

Gesture-Based Home Automation System

- Created an intuitive gesture-based interface for controlling household devices using computer vision. Won multiple national-level paper presentation awards for the project.
- Tools: OpenCV, MediaPipe

Computer Vision Monitoring of Underloading of Coal Wagons

- Developed an IoT solution to monitor underloading of coal wagons and notify concerned authorities. Integrated advanced computer vision techniques with TensorFlow.
- Tools: OpenCV, TensorFlow

Automated Research Summary Generator

- Developed a web scrapping tool which is capable of generating a scholar's publication, citation details from Google Scholar
- Tools: BeautifulSoup, Streamlit, Python

Honors & Awards

- Top 10 Placement in National Level Hackathon e-Yanthra by IIT Bombay
- Winner – National Level Paper Presentation, Easwari College of Engineering
- Runner – National Level Paper Presentation, Sri Venkateshwara College of Engineering
- Runner – National Level Paper Presentation, SIMATS Engineering