Rishabh Singh

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Education

Presidency University, Bangalore 2021–2025
B.Tech in Computer Science and Engg.

Kendriya Vidyalaya No.2, Jalahalli East, Bangalore 2021
12th Grade, CBSE

Technical Skills

Languages: Python, C, C++, Java, JavaScript
AI/ML: Computer Vision, CNNs, Transfer Learning, YOLOv5, SVM, ViT, TensorFlow, PyTorch
IoT/Robotics: Jetson Nano, ROS ,ESP32, STM32, RaspberrryPi, MQTT, LoRa
Web: React.js, Node.js, MongoDB, Express, CI/CD, Git, Linux, Docker, VS Code

Work Experience

Southern Taiwan University of Science and Technology, Taiwan Aug 2025 – Nov 2025
Research Intern

- Generated 10,000+ synthetic automotive trip data points, improving downstream model training efficiency by 20% and developed the application for video generation using OBD-II data.

National Chung Cheng University, Taiwan Sept 2024 – Nov 2024
AI Research Intern

- Developed PACS-integrated medical imaging platform (React, Node, MongoDB) for real-time esophageal cancer detection. Achieved 97% accuracy using ResNet/EfficientNet.

Indian Statistical Institute, Kolkata, India Jul 2024 – Oct 2024
Data Science Intern

- Built offline-capable Generative AI educational app using Ollama 3.1 for 500+ students in low-connectivity environments.

IASYNT Global, Bangalore, India Aug 2023 – Mar 2024
Web Developer Intern

- Developed full-stack web apps (React.js, Node.js); integrated IoT data via WebSockets and implemented CI/CD pipelines, improving deployment efficiency by 30%.

For a complete list of my work experience, click here.

Projects

AI-Based Automatic Drone Surveillance System GitHub
Autonomous drone surveillance using YOLOv5, RGB/thermal cameras, ROS, and Jetson Nano.

PACS-Integrated Cancer Detection System GitHub
Real-time PACS + AI diagnosis platform integrating CNN-based cancer prediction (97%).

Indian Medicinal Plant Identification System GitHub
AI-powered system for leaf-based identification of Indian medicinal plants using deep learning.

To view all projects in detail, click here.

Publications

R. Singh, M. S., S. Mondal, S. Sarkar, "Identification of Indian Medicinal Plants Using ML," *Springer*, 2025 (Accepted) — ***Yet To Publish***

R. Singh, P. Jain, "CelInsight: AI-Powered Web Solution for Cervical Cancer Detection," *Presidency University*, 2024 — **Read here**

A. Kumar Singh, R. Singh, "Real-Time AI Feeds for Indian Cyber Incident Detection," *Presidency University*, 2025 — **Read here**

Full publication list available Click here.

Articles

- **Bridging the Gap: Architecting PACS-Integrated Deep Learning Systems for Real-Time Clinical Decision Support** Read here
- **Context-Aware IoT: Making Devices Think Smarter** Read here
- **High-Performance Vision Models for Resource-Constrained Environments** Read here

View all articles Click here.

Achievements

- Winner – Smart India Hackathon 2024 (India's largest government-organized hackathon)
- Runner-Up – Prajwalan 2k24 Hackathon
- Runner-Up – SCIMIT Mega Science Expo 2024
- Most Innovative Idea – InnovateX, IISc Bangalore

See complete achievements here.

To know more about me in a more interactive and detailed way, please visit my website:
Click here to explore my portfolio.