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

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.
- Evaluated model robustness under noisy and incomplete real-world vehicular data scenarios.

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.
- Trained CNN-based deep learning models (ResNet, EfficientNet) achieving 97% diagnostic accuracy.
- Performed model comparison, hyperparameter tuning, and performance evaluation for medical image classification tasks.

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.
- Optimized LLM inference pipelines for edge deployment, reducing dependency on internet connectivity.

IASYNT Global, Bangalore, India Aug 2023 – Mar 2024
AI 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%.
- Implemented real-time dashboards for monitoring sensor data and ML outputs, bridging IoT systems with intelligent analytics.
- Deployed scalable AI-enabled web systems on production environments.

Entrepreneurship Experience

Zeeto.AI Aug 2025 – Nov 2025
Co-Founder

- We have developed the full-stack management systems for a chain of clinics which includes the systems for detecting the skin based diseases on the human body for early precautions.
- We have also developed the AI Based Agricultural and surveillance drones.

Projects

AI-Based Automatic Drone Surveillance System GitHub
- Designed an autonomous drone surveillance system using YOLOv5 for real-time object detection and tracking along with GPS coordinates.
- Deployed models on Nvidia Jetson Nano with ROS-based control, optimizing inference latency for edge AI applications.

PACS-Integrated Cancer Detection System GitHub
- Developed a real-time AI-assisted cancer diagnosis platform integrated with PACS imaging infrastructure.
- Implemented CNN-based prediction models achieving 97% accuracy on esophageal cancer datasets.

Fragmented Neural Network (FNN) based Indian Medicinal Plant Identification System GitHub
- Built an AI-powered system for leaf-based medicinal plant identification using fragmented neural networks (FNN).
- Trained multiple weak classification models on diverse plant datasets to support medicinal plant recognition to prepare a strong model. Focused on feature extraction, model generalization, and real-world usability for biodiversity and healthcare applications.

Raspberry Pi powered Smart WheelChair GitHub
- Developed a smart wheelchair integrating gesture-based control using MPU6050 (accelerometer + gyroscope).
- Real-time obstacle detection with ultrasonic sensors and Intel RealSense D435 depth camera. The system leverages AI-powered navigation and collision avoidance deployed on Raspberry Pi, ensuring seamless control and improved safety for users in dynamic environments.

Research Work

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

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**

Articles

- The Teamwork Approach: Understanding Fragmented AI Simply **Read here**

- Bridging the Gap: Architecting PACS-Integrated Deep Learning Systems for Real-Time Clinical Decision Support **Read here**

- High-Performance Vision Models for Resource-Constrained Environments **Read 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

Roles And Responsibilities

- Invited Reviewer for IEEE Contemporary Computing Innovations Conference 2026
- Artificial Intelligenica, Presidency University, Bangalore - Club Lead
- IEEE Presidency University Chapter - Club Web Master
- University Smart India Hackathon - Team Lead

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