

RAJENDRAN S

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Education

Coimbatore Institute of Technology, Coimbatore

2023 - 2027

B.Tech in Artificial Intelligence & Data Science

9.74 /10 CGPA

Green Valley Matriculation Higher Secondary School, Hosur

2021 - 2023

HSC, Computer Science

97.2 / 100

Experience

Research Intern - Smart City Lab, Telkom University (May 2025 - Present)

- Conducted in-depth research and model development for the "Waste Object Detection" project focused on identifying and classifying various waste materials using computer vision techniques.
- Designed and trained four deep learning models — YOLOv10, YOLOv11, YOLOv12 — for object detection, achieving SoTA results of **95.2%** by performing improvements through iterative experimentation and hyperparameter tuning.

Projects

Respio – Pulmonary Disease Detection (August 2024)

[Source Code](#)

- Developed an AI-based application for detecting pulmonary infections in food processing industry workers using respiratory audio analysis.
- Implemented a deep learning model combining CNN and GRU for accurate disease classification.

TinyToes - AI based Baby Wellness and Parenting Assistant (February 2025)

[Source Code](#)

- Web platform designed to help parents understand and care for their babies using advanced AI technology.
- Offers features such as baby cry analysis, milestone tracking, expert consultations, and a nanny booking service to provide seamless support to parents.

Certifications

Designing Machine Learning Applications for Embedded Systems

August 2024

DigiToad Technologies

Building Large Language Models (LLM) for Generative AI

March 2024

PSG College of Technology

Python for Data Science

Dec 2023

IBM

Events & Achievements

- First Place** in E-Week (Ideathon) at GR Damodaran Academy of Management for presenting a **piezoelectric-based smart city** idea.
- First Place** in Ideathon at the Dept of Humanities & Chemistry, CIT for pitching **LearnARly**, an application incorporating Augmented Reality in Education idea.
- First Place** in a Project Expo at **Virtus Codicis** at Sri Eshwar College of Engineering
- Second Place** in Googleathon (Hackathon) by GDSC Club for a **Respiratory Disease Detection** idea in Food Processing Industries.
- First Place** in Perpetual Fest'24, an IoT based Project Expo at CIT.
- Third Place** in HackerRush (AI&ML Hackathon) by WEC in CIT.
- Published article "Ethical Enigma of AI" and won "**The Best Content**" award in Pixel magazine, Dept of AI & DS, CIT.

Roles and Responsibilities Held

- Joint Secretary**, AI & DS Association, Coimbatore Institute of Technology (April 2024 - April 2025)
- Joint Secretary**, Entrepreneurship Development Cell, Coimbatore Institute of Technology (August 2024 - Present)
- Technical Lead**, FOSS, Coimbatore Institute of Technology (May 2025 - Present)
- Student Coordinator**, Institution Innovation Council, Coimbatore Institute of Technology (February 2023 - Present)

Skills

Languages: Java, Python, C, R, C++

Frontend: HTML, CSS, Bootstrap, Javascript

Databases: MySQL, MongoDB

Frameworks: Django, React, Next JS, TypeScript