






VARSHAN RAJ

CONTACT

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 [Varshan-LinedIn](#)
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 Coimbatore

SKILLS

Data Science
Machine Learning
Artificial Intelligence
Blender & Unity

EDUCATION

BE COMPUTER SCIENCE

Coimbatore Institute of Technology

2022-2026

CGPA: 8.34/10.0

XII (HIGHER SECONDARY, STATE BOARD)

SBOA Matriculation and Higher Secondary School

2021-2022

Percentage: 95.33%

TOOLS

Tensorflow
Figma

LANGUAGES

C++
Python
Java

EXPERIENCE

JULY 2024

SUMMER INTERN AT COIMBATORE INSTITUTE OF TECHNOLOGY

- Completed a summer internship at CIT college, Coimbatore, focusing on AI/ML applications.
- Improved model accuracy and efficiency using the models developed, through data augmentation techniques, contributing to advancements in predictive analytics.

ACADEMIC PROJECTS

AI-Powered Virtual Assistant with Speech Interaction

- Integrated real-time speech-to-text using **Google Speech Recognition** to capture user input dynamically.
- Implemented AI-driven text generation with **Groq Llama models** for intelligent and context-aware responses.
- Developed text-to-speech synthesis using **ElevenLabs API** to generate natural voice output.
- Enabled dynamic lip-syncing in **Unity** for a **3D avatar**, enhancing interactive and immersive experiences.

Sign Language Detection

- Developed a well trained **CNN** model with more than **2 lakh images** as dataset which achieved an accuracy of **80%**.
- Upon achieving satisfactory performance, the model is used to **predict sign language gestures** from new images, converting them into readable text.
- This functionality is intended to assist in **real-time communication** scenarios by screening them with the help of normal mobile cameras through an app, providing an accessible tool for **translating sign language to normal words** and sentences which normal human can understand.

Digit Recognizer

- A python application that predicts the handwritten digits using the **K-Nearest Neighbour(KNN)** algorithm.
- Dataset for the project is obtained from the **MNIST** Database.
- The predicted result produced **0.96** accuracy.

Audio Classifier

- Implemented a **deep learning** approach for classifying urban sounds using the **UrbanSound8K dataset**.
- It provides scripts for data preprocessing, model architecture design, training and evaluation, feature extraction, and visualization.
- The UrbanSound8K dataset consists of **8,732** short audio excerpts (<= 4 seconds) categorized into 10 classes of everyday urban sounds.
- The accuracy after training the model is **78%**

ACHIEVEMENTS

- Solved **150+** Leetcode problems (2025).
- Organized **CRYPTERIA** event at Coimbatore Institute of Technology (2024).
- Member of the **Chess** committee at Coimbatore Institute of Technology (2024).