

KAMATCHI SOMESH S

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PROFILE

Aspiring machine learning engineer with a strong foundation in model development, data preprocessing, and full-stack deployment. Skilled in integrating intelligent systems with web and mobile platforms to build scalable, real-world solutions.

EDUCATION

M.Sc. Artificial Intelligence and Machine Learning

Coimbatore Institute of Technology

CGPA - 7.9 | 2025 - Present

HSC

Vikas Vidyalaya Matric Higher Secondary School

Percentage - 92% | 2019 - 2021

AREA OF INTEREST

Machine Learning & Model development | Mobile and web app development | Database Management | MERN - Stack

SKILLS

Web Skills: HTML, CSS, JavaScript

Frameworks : MERN Stack, Flask, FastAPI, Scikit learn, Torch, Tensorflow

AI/ML Concepts: Neural Networks, Deep Learning, Natural Language Processing, Forecasting - **PYTHON**

Databases: MySQL, MongoDB (Beginner)

Soft Skills: Time Management, Communication, Creativity, Team Coordination

EXPERIENCE

Machine Learning intern - 5 Months - **Sayvai Software LLP**

- Contributed to operational GenAI projects involving speech-to-text models, forecasting, and multilingual AI integrations.
- Researched and developed AI pipelines for real-world client use cases.
- Hands-on work with **Whisper, Sarvam AI, Transformers, and knowledge graphs.**
- Explored speech processing in Haitian Creole and voice bot integration for Tamil.

INTERN PROJECTS

- Wealthified - AI Meet Assist :** Developed transcription pipeline using Whisper for audio diarization and summarization.
- Amazon Product Sales Forecasting:** Built time-series models (LSTM, ARIMA, SARIMA) for predicting seasonal sales trends.
- AI Project Manager:** Integrated with Notion API for project data retrieval and task management automation.
- Haitian Creole Research:** Evaluated multilingual STT/TTS model fine-tuning for Haitian Creole using SpeechT5.
- Voice Bot Exploration:** Developed multilingual voice bot integrating Sarvam AI and OpenAI for Tamil language support.

ACADEMIC PROJECTS

Cattle and Crop Hub

- A full-stack MERN web app with user authentication (JWT) and integrating payment APIs for seamless functionality.
- Designed a user-friendly React-based front-end facilitating smooth menu browsing, order placement and efficient profile management.

Financial Anomaly Detection System

- Comprehensive fraud detection system integrating Flask web UI and an enhanced terminal interface.
- Implemented multiple models including Isolation Forest, One-Class SVM, Autoencoder, Deep Autoencoder, Random Forest, and XGBoost. Built advanced preprocessing pipelines (SMOTE, ADASYN, Tomek Links), real-time visualization, and hyperparameter tuning.
- Developed dashboards with model comparison, policy and technical recommendations, and risk assessment. Designed for financial fraud detection using SSBCI transaction datasets.

Game Gaurd (Present)

- A deep learning-powered system for monitoring player emotions during gameplay and promoting mental well-being.
- Integrated facial expression recognition with CNN and LSTM models for real-time emotion detection and analysis.
- Designed a responsive interface for notifications and approval-based game termination, ensuring a player-centric gaming experience

CERTIFICATIONS

Mobile App Development - **Kriya** | Web Animation using CSS - **DevTown** | Cyber Security and Ethical Hacking - **Kurukshetra**