



Saranya Maghendran

Junior AI Engineer - Technibits solutions

AI enthusiast with hands-on experience in deep learning, pose estimation, and practical industry applications.

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📍 Kanchipuram, India

EDUCATION

— B.Tech - Artificial Intelligence and Data Science

Misrimal Navjee Munoth Jain Engineering College

11/2021 - 05/2025

8.0/10

— Class XII

SSKV Girls Higher Secondary

06/2019 - 04/2021

Percentage : 84%

WORK EXPERIENCE

— Junior AI Engineer Technibits Solutions

07/2025 - Present

Responsibility

- Built a custom Object Detection pipeline using YOLOv8 with manually labeled datasets, achieving accurate PPE and human activity detection in images and videos.
- Integrated pose estimation (YOLOv7-Pose/MediaPipe) with object detection to map PPE items to human keypoints for advanced safety-compliance monitoring.
- Developed NLP modules using BERT-based models for text classification, document summarization, and domain-specific chatbot query understanding.
- Created end-to-end AI pipelines using Python, PyTorch, OpenCV, and FastAPI, enabling real-time inference and modular deployment.

RESEARCH PAPER

NyayaAI: Multi-Talented AI for Legal Aid, Smart Investing, and Scam Shielding (05/2025 - 07/2025)

International Journal of Computer Applications

ACHIVEMENTS

Hexaware Mavericks Hackathon Winner (10/2023 - 05/2024)

Awarded ₹50,000 for creating an innovative soft skill enhancement app leveraging GPT-2 and the MERN stack.

SKILLS

Python - Pandas, NumPy, Matplotlib, Seaborn, TensorFlow, Keras

Langchain, ChromaDB, HuggingFace Transformers

SQL - PostgreSQL, Mysql

Microsoft power BI, Tableau

Data Science • Data Analytics • ETL Process

• Machine Learning • Deep Learning • Generative AI

PERSONAL PROJECTS

Hexaware Mavericks Hackathon - Soft skill Enhancement Application using MERN: (10/2023 - 01/2024)

- Designed and implemented a full-stack application using the MERN stack for the Hexaware Mavericks Hackathon, featuring responsive UI and dynamic dashboards for personalized user experiences.
- Successfully integrated GPT-2 to evaluate user performance on soft skill tests, enhancing the feedback mechanism and overall user engagement.

Nyaya AI: The Multi-Talented AI for Legal Aid, Smart Investing, and Scam Shielding (12/2024 - 05/2024)

- Developed Nyaya AI, a legal aid chatbot offering free AI-powered assistance in Indian law, including case prediction, legal summarization, and voice-based query resolution.
- Implemented full-stack architecture using React, Express, and MongoDB, integrating Hugging Face models like Mistral AI, all-MiniLM-L6-v2, and In Legal BERT for advanced NLP tasks.
- Built a financial legal advisor module (FinChimp) using Mixtral model, trained on IPC, CrPC, IEA, and Finance Bill 2025, fine-tuned with Indian legal terminology for accurate financial guidance.

Generative AI-Powered SQL Querying System for Retail clothing store (02/2024 - 05/2024)

- Built an AI-powered SQL query system using LangChain, Vertex AI, Streamlit, and Chroma vectorstore, enabling natural-language interaction with MySQL databases through few-shot learning and optimized query execution.
- Developed an intelligent SQL agent using ChatVertexAI and VertexAIEmbeddings, delivering accurate, context aware database responses through a user-friendly web interface.

CERTIFICATES

• Google Data Analytics Professional Certificate (03/2023 - 05/2023)

• MERN Stack - Naan Mudhalvan (08/2023 - 12/2023)

• Data Analytics - ICT Academy (01/2024 - 05/2024)