MANIKANDAN N

CONTACT

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Sivakasi, Tamil Nadu, India

EDUCATION

Bachelor of Technology Artificial Intelligence and Data Science
MEPCO SCHLENK ENGINEERING COLLEGE, SIVAKASI

CGPA : 8.04 (upto 5th Semester)

2022-2026

HSC - 94.17%
VINAYAKAR MATRICULATION HIGHER SECONDARY SCHOOL, Sivakasi

2022

SSLC - 82.8%
VINAYAKAR MATRICULATION HIGHER SECONDARY SCHOOL, Sivakasi

2020

SKILLS

Programming Languages
- Python
- JAVA
- CUDA
- C/C++

LLM Framework
- Langchain

Deep Learning Frameworks
- PyTorch
- TensorFlow

DataBase
- MySQL
- Apache Cassandra
- MongoDB
- Neo4j

Containerization
- Docker

ABOUT ME

I am a passionate deep learning researcher dedicated to developing cutting-edge multilingual and multimodal LLMs. My work emphasizes linguistic inclusivity, AI ethics, and designing innovative architectures. I specialize in autonomous research and creating advanced machine learning methodologies, while deeply engaged in understanding and mastering mathematical formulas to strengthen my foundation.

PROJECT

Query Gen

QueryGen was a Streamlit application that allowed you to generate SQL queries based on natural language prompts and CSV file inputs. It used LangChain's SQL query generation capabilities and the ChatGroq language model to interpret user prompts and generate optimized SQL queries tailored to the uploaded CSV data.

Repo link : link

Comment Analyzer

It built a neural network, trained it on labeled comments, and included a Tkinter GUI for predicting toxicity of input sentences. The model was saved and loaded using the HDF5 format, though a native Keras format was recommended.

Repo link : link

Detection of face-swap based deep fake videos

Developed a deep fake detection system using audio-visual analysis to identify face-swap deep fakes by detecting mismatches in lip movements, speech, and ambient sound inconsistencies.

Repo link : link

RAG Model

Developed a Retrieval-Augmented Generation (RAG) system using FAISS for efficient vector search and Groq for LLM-based responses. Implemented PDF data extraction, sentence embedding with SentenceTransformers, and contextual query response generation.

Repo link : link

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PROJECT

TIC TAC TOE - MINIMAX

This is a implementation of the classic Tic-Tac-Toe game in Python using the Tkinter library for the GUI. The computer player uses the Minimax algorithm to determine the best move.

Repo link : link

CERTIFICATIONS

NPTEL - Responsible & Safe AI Systems
Jul-Oct 2024

NPTEL - Programming With Java
Jan-Apr 2024

INFOSYS SPRINGBOARD - Associate in IT Foundation Skills (JAVA)
Mar -2025

MICROSOFT CERTIFIED - AZURE AI Engineer Associate Certification
Feb - 2025

LANGUAGES

Tamil

English