

PRAGATEESHWARAN

CONTACT

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EDUCATION

Bachelor of Technology
Artificial Intelligence and Data
Science
MEPCO SCHLENK ENGINEERING
COLLEGE, SIVAKASI
2022 - 2026

Higher Secondary Education
K.KAMARAJAR
MATRICULATION HIGHER
SECONDARY SCHOOL, Sivakasi
2022

SKILLS

Programming Languages

- Python
- JAVA
- CUDA
- C/C++

LLM Framework

- Langchain
- llamaIndex

Deep Learning Frameworks

- PyTorch
- TensorFlow

DataBase

- MySQL
- Apache Cassandra
- MongoDB
- Neo4j

Containerization

- Docker

Cloud

- Microsoft Azure

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

LoRA-From Scratch

This project implemented a Low-Rank Adaptation (LoRA) technique from scratch for fine-tuning a neural network on the MNIST dataset. It covers the model setup, adaptation process, and a comprehensive training pipeline, including optimization, loss functions, and evaluation metrics for efficient model fine-tuning.

Repo link : [link](#)

LLaMa-3 From Scratch

This project implemented a Low-Rank Adaptation (LoRA) technique from scratch for fine-tuning a neural network on the MNIST dataset. It covered the model setup, adaptation process, and a comprehensive training pipeline, including optimization, loss functions, and evaluation metrics for efficient model fine-tuning.

Repo link : [link](#)

GPT-2 From-Scratch

This Project uses PyTorch to build and train a OpenAI's GPT-like language model for text generation. It includes data preprocessing, defining model architecture with multi-head attention and feedforward layers, training with backpropagation, and text generation using the trained model.

Repo link : [link](#)

Vanilla Decoder

This repository contains the implementation of a Vanilla Transformer Decoder Block built using PyTorch.

Repo link : [link](#)

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PROJECT

QueryGen

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](#)

Deep Face Detection

This project implemented a deep learning model using TensorFlow for face detection. It involved data preprocessing, augmentation, and training a VGG16-based model. The model was trained to classify and localize faces in images, with real-time predictions visualized through OpenCV

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](#)

CERTIFICATES

NPTEL - Responsible & Safe AI Systems

Jul-Oct 2024 [Link](#)

NPTEL - Programming With Java

Jan-Apr 2024 [Link](#)

NPTEL - The Joy Of Computing Using Python

Jul-Oct 2023 [Link](#)

UDEMY - Python for data science and Machine learning bootcamp

Oct-2023 [Link](#)

EXPLORE IT CORP - Python in artificial intelligence, Machine learning and data science

Sept - 2022 [Link](#)

LANGUAGES

Tamil

English
