CODE
BASICS

DEMYSTIFY AI:

Gen AI, LLMs and NLP

JARGONS

What is Generative AI (or Gen AI)?

1 **GenAI:** Generative AI, the category of AI to generates new content like Text, Image, Video etc.

Evolution of Gen AI Models

1 **Self-Supervised Learning:** Self-supervised learning is a type of machine learning where the system learns from data that it labels and organizes itself, without needing human intervention.

2 **Language Model:** Language Model is an AI model that can predict the next word (or set of words) for a given sequence of words.

3 **LLM:** Large Language Model, an evolved version of language model which is trained on huge volume of data.

4 **Transformers:** A powerful neural network architecture which is powering GenAI tools like ChatGPT.

5 **BERT & GPT:** Text based LLM built by google & OpenAI respectively.

6 **DALL-E & Stable Diffusion:** Image based LLM built by OpenAI and stability AI.

7 **SORA:** Video based LLM built by OpenAI.

What is LLM? Analogy Based Simple Explanation

1 **RLHF:** Reinforced Learning with Human Feedback. Technique used to provide human feedback to large language models.

2 **LLM:** Large Language Models.

What is NLP?

1 **NLP:** Natural Language Processing is a field in computer science that gives machines the ability to understand human language better and to assist in language-related tasks.

2 **RegEx:** Regular Expression is a non-ML technique used in NLP to extract information based on text patterns.

Embeddings and Vector Database

1 **VectorDB:** Vector Database is a key component of AI which provides stores huge amount of data efficiently. It also provides faster and accurate results to user queries.

Retrieval Augmented Generation (RAG)

1 **RAG:** Retrieval Augmented Generation, the framework which helps a LLM to fetch additional data from the other sources which are not already used to train the model.

Tooling for Gen AI, LLM

1 **LangChain:** A python library that helps you to switch between LLM models seamlessly.