

Agenda

- ✓ AI Core Concepts
- ✓ Generative AI
- ✓ LLMs
- ✓ Prompt Design
- ✓ Workshop Logistics
- ✓ Workshop Overview
- ✓ Let us build something live!
- ✓ Follow ups



AI - Core Concepts

AI

Machine Learning

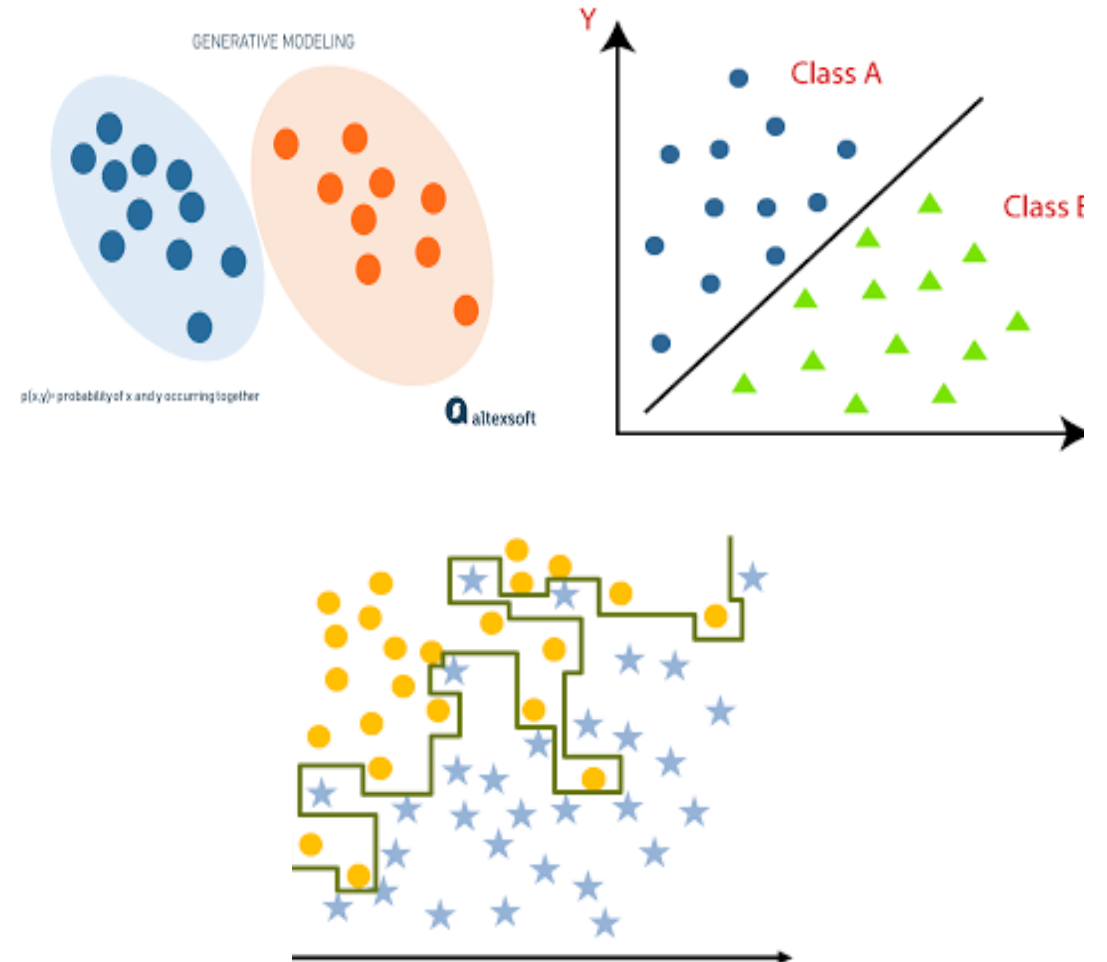
Deep Learning

Generative AI

Large Language Models

Generative AI

- ✓ Use of artificial neural networks
- ✓ Semi Supervised learning
- ✓ Subset of Deep Learning
- ✓ Discriminative Models
- ✓ Generative Models
- ✓ Generates Natural Language, Image, Videos etc.



Large Language Models

- ✓ Foundation Models
- ✓ Trained on massive datasets:
Large Data + *Large* number of parameters
- ✓ Pre-trained for general purposes
- ✓ Fine tuned for specific use-cases
- ✓ Generates Natural Language, Image, Videos etc.

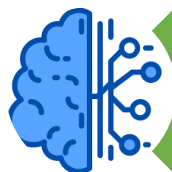


Draw me a cat
dancing on Mars

Prompt Design



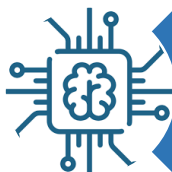
Fine tuning



Prompt Engineering



Zero Shot prompts



Few Shot prompts



Prompt tuning

Workshop Logistics



- ✓ GitHub Repo : `git@github.com:coder-igtm/llm-demo.git`
- ✓ Prerequisites : Follow README.md for the pre-setup
- ✓ Software and tools used:
 - Streamlit Python Library - <https://streamlit.io/>
 - Replicate - <https://replicate.com/explore>
 - Llama2 by Meta - <https://about.fb.com/news/2023/07/llama-2/>

Workshop Overview

- ✓ Build Streamlit based AI powered chat bot
- ✓ Accept User Input
- ✓ Integrate with Llama2 Model hosted in Replicate
- ✓ Explore fine-tuning of a model
- ✓ Build a new application using the fine-tuned model
- ✓ Evaluate the performance
- ✓ Understand the end-to-end workings of the application

Lets Build!



Follow ups

- ✓ Performance improvements
- ✓ Use Cases
- ✓ What's next?
- ✓ Q & A