

# All About Large Language Model

## About This Course

This course aims to introduce you to the world of Large Language Models by teaching you about all the aspects of Large Language Models and providing you with hands-on experience with mini projects.

## Learning Outcome

- Different aspects of Large Language Model
- What is Prompt and Prompt Engineering
- Fine Tuning Large Language Model
- Building Applications using Large Language Models
- Best Practices to deploy Large Language Models

## Prerequisite

1. You need have some experience with Python coding
2. You need to have some experience with Machine Learning with Python
3. Have knowledge of Cloud related services, Have deployed an applications on Cloud
4. Have an Account on Hugging Face, Also Have Google Colab Pro account for Training LLM models for access to High End GPU.

## Course Syllabus

| Week | Content | Projects |
|------|---------|----------|
|------|---------|----------|

|               |   |  |
|---------------|---|--|
| <p>Week 1</p> | <p>→ Introduction to LLM</p> <ul style="list-style-type: none"> <li>◆ Transformer Architecture</li> <li>◆ OpenSource LLM</li> <li>◆ OpenAI API Models</li> </ul>  | <ul style="list-style-type: none"> <li>● Build a very Simple Small Transformer Model</li> <li>● Build a Simple App using LLM using OpenAI API</li> </ul>                                     |
| <p>Week 2</p> | <p>→ Hugging Face Models</p> <ul style="list-style-type: none"> <li>◆ Hugging Face Hub</li> <li>◆ Types of LLM models</li> <li>◆ How find best model any specific task</li> </ul> <p>→ LangChain</p> <ul style="list-style-type: none"> <li>◆ Tools in LangChain</li> <li>◆ Agents in LangChain</li> <li>◆ Vectorization, Embeddings in LangChain</li> <li>◆ Memory in LangChain</li> </ul> | <ul style="list-style-type: none"> <li>● Build a App similar to ChatPDF</li> <li>● Build a Simple Question and Answering App using Hugging Face Model</li> </ul>                             |
| <p>Week 3</p> | <p>→ Fine Tune LLM Model</p> <ul style="list-style-type: none"> <li>◆ OpenAI API Model</li> <li>◆ Hugging Face Model</li> </ul> <p>→ Deploy App in Cloud</p> <ul style="list-style-type: none"> <li>◆ Cloud Services for LLM</li> <li>◆ How to Deploy in Cloud for LLM based Apps.</li> </ul>   | <ul style="list-style-type: none"> <li>● Fine Tune open source model for any specific purpose</li> <li>● Deploy the Fine Tuned model in Cloud and using API to integrate with App</li> </ul> |