

Mastery In Large Language Model :

Transformers, Attention Mechanisms, Hugging Face and Generative AI

Course Overview

Introduction :

- Start your LLM journey today

What You'll Learn :

- Basics of NLP
- Implement Transformer from scratch
- Working of LLM
- Apply LLM to real-world problems.

Highlights :

- **Course Duration - 5 days**
- **Number of Modules - 12**

Note :

- Some experience with programming is suggested.
 - The hands-on labs will provide practical experience with setting up
 - Hands-on Approach
 - This course can be customised based on the audience's prior knowledge and specific areas of interest.
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Course Content

MODULE 1:- Introduction to Machine Learning and Natural Language Processing

- Introduction to Machine Learning
- Supervised, Unsupervised, and Reinforcement Learning
- Introduction to Natural Language Processing
- Different Libraries
- Statistical Era
- Machine Learning Era

MODULE 2 :- NLP Concepts

- Text Preprocessing Techniques
- Text Tokenization
- Text Vectorisation
- Text Summarization
- Named Entity Recognition
- Sentiment Analysis

MODULE 3 :- Deep Learning and Neural Networks

- Introduction to Deep Learning
- Understanding Neural Networks
- Activation Functions
- Backpropagation

MODULE 4 :- Transformers

- Transformers History
- Transfer Learning
- Understanding the Transformer Architecture
- Encoder
- Decoder

MODULE 5 :- Implementing a Basic Transformer Model

- Setting Up the Environment
- Data Preparation
- Implementing a Transformer from Scratch
- Training the Model

MODULE 6 :- Popular Transformers Models

- GPT
- BERT
- T5

MODULE 7 :- Large Language Models

- What is Language Model
- Understanding Large Language Models
- Training vs Fine-tuning Large Models

MODULE 8 :- Hands-on with Large Language Models

- Using Pre Trained Large Language Models
- Fine-tuning Large Language Models

MODULE 9 :- Building blocks using Transformers

- Building Blocks
- Tokenizers
- Word Embeddings

MODULE 10:- Hugging Face

- Hugging Face Models
- Hugging Face Datasets
- Hugging Face Documents
- Hugging FaceEcoSystem

MODULE 11 :- Real world Scenarios with Transformers

- Use Cases of Transformer Modell
- Industry Applications of Large Language Models
- Writing Product Review

MODULE 12:-: Capstone Project and Q&A

- Capstone Project: Building an AI Chatbot using Transformers
- Project Presentation
- Q&A Session

Happy learning! 😊