Building AI Application With Large Language Model

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Course#:Gen-AI-004
Duration:3 Hours
Price:399.00
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Course Description

Elevate your tech and AI career with our cutting-edge Building AI Application with LLM training program. Discover the limitless potential of Building AI application and redefine your expertise in working with large language models.

Objectives

This program equips you with the skills to build AI Application with LLM and dive into real-world case studies that showcase with practical knowledge.

Audience

Looking to take your career in AI and technology to new heights? Our Building an application with LLM training program is designed to empower professionals of all backgrounds, whether youre a seasoned AI researcher, software engineer, data scientist professionals who want to learn and understand the techniques of finetuning, with basic knowledge of python and a knowledge with deep learning framework pyTorch.

Prerequisites

Anyone can attend the course.

Content

Module 0: Introduction to AI

 What is Artificial Intelligence
 Brief history of AI
 Importance and applications of AI
 Building blocks of AI
 Type of AI
 AI in Real-world Applications

Healthcare applications

Finance and trading

Autonomous vehicles

Natural resource management

AI Tools and Technologies

AI programming languages (e.g., Python)

AI libraries and frameworks (e.g., TensorFlow, PyTorch)

AI development environments

Module 1: Introduction to Large Language Models

What is LLM?

Historical evolution of LLMs

What are the Functionality of LLM

Real time examples of LLM

Transform Model Architecture of LLM

Module 2: Capabilities of LLMs

Advanced Text Generation

Understanding Context and Nuance

Language Translation

Conversational AI

Sentiment Analysis

Code Generation and Auto-completion

Predictive Text and Autocorrection

Text Classification

Module 3: Setting Up the Development Environment with LLM

Tools and platforms for LLM development

Basic setup for creating AI applications with LLMs

Module 4: Basic Programming with LLMs

Introduction to programming with LLMs

Key terms in Introduction to programming with LLMs

Text generation, summarization with examples

Module 5: Advanced Features of LLMs

Exploring advanced capabilities: Context retention

Style mimicry

Nuanced sentiment analysis

Style transfer

Fine-tuning and customization techniques

Module 6: Integrating LLMs in Applications

Techniques for integrating LLMs into existing applications

API usage and management

Module 7: Fundamentals of Finetuning

What is Finetuning?

Where finetuning is needed?

How to finetune a LLM

Compare a finetune model to a non fine tuned model

Difference between prompt engineering and Finetuning

Module 8: Real world Use Cases

Case Study 1: Content creation and automation

Module 9: Real world Use Cases

Case Study 2: Customer service chatbots

Module 10: Future Trends and Conclusion

Emerging trends in LLMs and AI
Discussion on the future impact of LLMs in various sectors

Module 11: Case Study: LLM Integration in Oakwood High School

A case study about the use of a Large Language Model (LLM) in the education sector

Module 12: Best Optimization Strategies for Large Language Models

Data Efficiency Optimization
Model Architecture Optimization
Training Techniques Optimization
Resource Management Optimization
Fine-Tuning and Generalization Optimization
Evaluation and Testing Optimization
Human-in-the-Loop Optimization

Ethical Considerations Optimization

Explainability and Interpretability Optimization

Deployment and Scaling Optimization

Lab 1 Compare fine-tuned vs non-finetuned models

Lab 2 Finetune Llama 2

Lab 3 Langchain evaluating LLM