

# **Building AI Application With Large Language Model**

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

### **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 Al 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