# Unlock the Power of Generative AI with Our Hands-On Training!

Are you ready to step into the exciting world of **Generative AI** and become a skilled practitioner in this rapidly evolving field?

Our 15-week immersive course is designed to transform your understanding of AI into hands-on capability. Whether you're a tech enthusiast, a working professional, or an aspiring AI engineer, this training will equip you to build and deploy real-world GenAI solutions confidently.

## Meet Your Instructor

Your mentor brings over 10 years of experience in the field of Data Science, with the last 3 years focused deeply on Generative AI. With extensive expertise across Big Data, Machine Learning, and building real-world Al applications, your instructor combines technical mastery with practical delivery—ensuring every session is both insightful and impactful.

### 15-Week Course Curriculum

#### Week 1: Welcome to Generative AI

- What is Generative AI?
- Applications across industries (healthcare, finance, legal, etc.)
- Assignment: Case study on GenAI use cases in your domain

### **Week 2: Architectures Behind the Magic**

- Neural networks, transformers, and attention
- Evolution: RNN → Transformer → Diffusion Models
- Visualization and flow diagrams

## Week 3: LLMs in Action

- Understanding GPT-4, Claude, LLaMA, Gemini
- Text generation, summarization, Q&A
- Hands-on: OpenAl and Hugging Face APIs

## **Week 4: Prompt Engineering Mastery**

- Prompting techniques: zero-shot, few-shot, CoT
- Prompt templates and tuning

• Practice tasks for multiple domains

## Week 5: LangChain in the Real World

- LangChain basics: chains, agents, tools
- Connecting APIs and memory
- Lab: Document-based Q&A chatbot

## Week 6: Multimodal AI for Text, Image & Audio

- Tools: GPT-4V, CLIP, Whisper, Gemini
- Cross-modal data interaction
- Project: Text generation from image/audio inputs

## Week 7: APIs, Streamlit & GenAl App Basics

- Introduction to Streamlit
- Building simple apps with GenAl APIs
- Deploy on Streamlit Cloud

#### Week 8: What is RAG?

- RAG (Retrieval-Augmented Generation) flow
- Embeddings, vector stores, document chunking
- Comparison: RAG vs. vanilla LLMs

## **Week 9: RAG-Powered Applications**

- Full pipeline implementation
- LangChain + FAISS/Chroma integration
- Build your own domain-specific GenAl assistant

## Week 10: Fine-Tuning LLMs

- Concepts: fine-tuning, LoRA, PEFT, Adapters
- Dataset preparation, model training
- Optional: Try PEFT using Hugging Face

## Week 11: GenAl App Deployment Essentials

- Deployment tools: Streamlit, Gradio
- Docker basics for containerization

· Activity: Deploy your GenAI app to the cloud

## Week 12: Project 1 - RAG-Based Assistant

- · Build an end-to-end chatbot using RAG
- Work with PDFs or unstructured data
- Deliverable: Hosted, live working RAG app

## Week 13: Project 2 - Multimodal / Domain-Specific AI

- Choose your capstone:
  - a) Multimodal (text+image/audio) app
  - b) Code/data automation bot
  - c) Industry-specific GenAI assistant (e.g., legal, healthcare)
- Deliverable: Functional app with UI and logic

## Week 14: Resume & Portfolio Building

- Showcase GenAl work on GitHub and LinkedIn
- Resume tips for AI roles
- Building a strong online portfolio and personal brand

## Week 15: Interview Prep & Career Support

- Common GenAl interview questions (LLMs, RAG, APIs, etc.)
- Behavioral and project-focused Q&A
- Mock interview guidance & live discussions

## By the End of This Course, You Will:

# Suild 10+ Real-World Projects

Including 2 high-impact capstone projects that mirror real enterprise scenarios, helping you stand out in any technical interview or portfolio review.

# Gain Deep Practical Expertise

Work hands-on with powerful tools like GPT-4, LangChain, Hugging Face, and ChromaDB to tackle real data challenges.

# Master the Full GenAl Lifecycle

Learn everything from prompt engineering and LLM fine-tuning to app deployment using Streamlit, Gradio, and Docker.

## Create a Job-Ready Portfolio

Host your work on GitHub, document your journey, and make your LinkedIn shine with rich, credible GenAl content.

# **6** Be Interview-Ready

Get access to industry-vetted GenAl interview questions, resume prep, and live mock interview sessions to boost your confidence.

# Accelerate Your Al Career

Transition into high-demand roles like GenAl Engineer, Prompt Engineer, Al Solutions Architect, or LLM App Developer with real, demonstrable skills.

# Gain Industry Exposure

Work on domain-relevant GenAl projects across healthcare, finance, legal, and creative sectors to show your versatility and domain fluency.

## By end of this course what you will learn

Project Title: AI-Powered Contextual Chatbot Using Generative AI

# Project Overview:

Developed an advanced conversational AI chatbot powered by Large Language Models (LLMs) to deliver intelligent, human-like responses across diverse use cases including customer support, internal knowledge retrieval, and document-based Q&A. The chatbot provides real-time interaction, context-aware replies, and seamless integration with enterprise data sources.

# **Objectives:**

- Provide users with instant, accurate, and context-aware responses.
- Reduce manual effort in customer support and knowledge management.
- Enable natural-language querying over internal documents or data (PDFs, Excel, Databases).
- Improve accessibility to company knowledge and resources using conversational interfaces.

## **Generative Al-Based Image Generator**

# **✓** Project Overview:

Built a state-of-the-art Al-powered image generator that creates high-quality, realistic or stylized images from text prompts. This tool leverages diffusion models and transformer-based architectures to empower creative workflows in design, marketing, gaming, and content generation.

## **Objectives:**

- Generate compelling images from user-provided text prompts.
- Enable customization for specific styles (e.g., photorealistic, cartoon, anime, product mockups).
- Provide an intuitive interface for creative professionals and marketers.
- Reduce dependency on stock images or manual graphic design.

## **AI-Powered Language Translation System**

# **✓** Project Overview:

Developed an AI-driven language translator that delivers accurate, fluent, and context-aware translations across multiple languages. The solution leverages transformer-based models (LLMs) to go beyond word-to-word translation, understanding cultural and contextual nuances for better communication in global business, education, and content delivery.

# **Objectives:**

- Provide real-time, multilingual translations for documents, conversations, and content.
- Maintain contextual and semantic accuracy instead of literal translations.
- Support domain-specific vocabulary (legal, medical, technical).
- Offer a **user-friendly web interface** for translation and transcription tasks.

## **AI-Based Text Summarization Engine**

# **✓** Project Overview:

Developed an intelligent text summarization tool that uses Generative AI to automatically condense lengthy documents, articles, and reports into concise, meaningful summaries. The system supports both extractive and abstractive summarization, delivering human-like precis with high relevance and coherence.

# **Objectives:**

- Automatically summarize long-form content to improve readability and decisionmaking.
- Provide **customizable summary lengths** (bullet points, paragraph, executive briefs).
- Enable users to quickly understand key information from large documents or datasets.
- Integrate into workflows like legal reviews, news aggregation, or academic research.

## **%** Note to Clients/Learners:

These are just a few sample projects you'll be building as part of this course. By the end, you'll have hands-on experience with **10+ real-world Generative AI projects**—ranging from chatbots and image generators to translation systems, text summarizers, and more—designed to make you industry-ready with practical, portfolio-worthy work.

# **Session Structure**

#### Each weekend:

- ( ) 2 hours of live instruction
- 1 hour dedicated to doubt clearing, hands-on Q&A, and debugging

# **Bonus Inclusions**

- Recorded Sessions: Access full replays anytime during the course
- **\_\_\_ GitHub Access**: Full course code, labs, and solutions available
- mands-On Labs: Build actual applications using industry tools
- **Career Support**: Resume guidance + interview preparation

## Course Fees

- One-time payment: ₹13,000/-
- Or two instalments: ₹7,000/month × 2 (₹14000+ ₹1000) = ₹15,000/-
- Reserve your seat now with just ₹1,000/- (limited seats only!)

Tentative Start Date: 10th May 2025