



# MFE-IT

Reference: PH-LLM

## Generative AI and LLMs Training Course

Design, Customise and Deploy Powerful Models

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*Duration: 2 Days | Hours: 14 h*

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*Remote · Sessions guaranteed from 1 registrant · 60% hands-on practice*

## DESCRIPTION

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Large Language Models (LLMs) such as GPT, Claude or Mistral are transforming how we interact with technology. But between their theoretical potential and real-world deployment, there is a significant gap. This training course bridges that gap: you will learn how these models work, how to customise them for your needs, and how to deploy them in real environments — from API integration to fine-tuning, through to RAG architectures.

Whether you are a developer, data scientist or IT architect, this training course will give you the technical tools to get the most out of LLMs in your projects.

## LEARNING OBJECTIVES

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By the end of this training course, participants will be able to:

- Understand how LLMs work (architecture, training, limitations)
- Choose the right model for a given use case (GPT, Claude, Mistral, open-source)
- Integrate a model via API (OpenAI, Anthropic, HuggingFace)
- Build a RAG (Retrieval-Augmented Generation) pipeline
- Fine-tune a model on custom data
- Deploy an LLM application in a real environment
- Evaluate model performance and manage costs

## PREREQUISITES

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- Python programming experience recommended
- Basic understanding of machine learning concepts
- Familiarity with REST APIs

*Because each participant is unique, a personalised interview is systematically organised in advance with our expert to design a training programme perfectly aligned with their objectives, level and professional challenges.*

## TARGET AUDIENCE

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- Python developers
- Data scientists and ML engineers

- IT architects wishing to integrate LLMs into their systems
- Technical profiles working on AI projects

## DETAILED PROGRAMME

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The training alternates between theoretical input and hands-on practice (approximately 60% of the time). Modules are built around practical exercises based on real-world business use cases.

### Module 1 – How LLMs Work

- Transformers, embeddings, tokens, generation models
- Why do they produce what they produce? A simplified introduction
- Strengths and known limitations of frontier models

### Module 2 – Overview of Major Models

- GPT, Claude, LLaMA, Mistral, Mixtral, Phi and others
- How to choose based on cost, performance, privacy, open source
- Comparative demos on typical enterprise tasks

### Module 3 – Prompt Engineering and RAG

- Prompt engineering techniques: roles, contexts, loops, logical chains
- Memory and Retrieval-Augmented Generation (RAG)
- Introduction to AI agents

### Module 4 – Integrations and APIs

- Using OpenAI, HuggingFace and Anthropic APIs
- Creating web assistants, integration with Notion, Slack, CRMs
- Low-code and custom frameworks

### Module 5 – Deployment Use Cases

- Internal chatbot, business copilot, meeting summarisation
- Legal or HR summary engines
- Local or cloud deployment, including serverless patterns

## Module 6 – Governance, Security and Responsible AI

- Governance and data security
- Hallucinations, output control, auditability
- Responsible use cases and error management

## TEACHING METHODS

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### Format and Delivery

The training is delivered remotely via an interactive virtual classroom. It can also be delivered on-site, with content customised to match the needs of your professional project. The theory/practice split is approximately 40%/60%.

### MFE-IT Ultra-Personalised Format

Each session accommodates between 1 and 3 participants, ensuring highly individualised support. A preliminary interview allows us to tailor the content to each participant's profile. Inter-company sessions are guaranteed from just 1 registrant (except in cases of force majeure).

### Skills Assessment

Throughout the training, the trainer assesses participant progress through multiple-choice questions, role-playing exercises and hands-on work. At the end, a certificate of achievement is issued to each participant.

### Post-Training Support

For one month following the training, each participant can contact MFE-IT trainers with questions about implementing acquired knowledge. A response is provided by email or telephone within 48 working hours.

### Accessibility

MFE-IT is committed to welcoming people with disabilities. Contact: [contact@mfe-it.com](mailto:contact@mfe-it.com).

## PRACTICAL INFORMATION

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### Trainer Resources

- Structured demonstrations aligned with the detailed programme
- Exercise briefs and solutions throughout the training
- A ready-to-use technical environment for practical workshops
- Trainer validation of acquired knowledge at the end of each workshop
- Digital reference documents

## **Certification and Validation**

At the end of the training, a certificate is sent by email specifying the objectives, nature, duration and assessment results. A completion certificate can also be provided on request.

## **Benefits for Participants**

- Train from your workplace or home, with no travel required
- Benefit from an expert trainer-consultant on the subject
- Enjoy an ultra-personalised format (1 to 3 participants)
- Continue training even in the event of unforeseen circumstances

## **Benefits for the Organisation**

- Optimise the training budget by reducing travel and accommodation costs
- Offer quality training to all employees, regardless of location
- Reduce absence time linked to travel
- Support team upskilling in all contexts