

Artificial Intelligence

AI Training

AI Training: Responsibility and Opportunity

- All studies and experts indicate that the impact that the new AI will have on companies will be enormous and will dramatically affect their competitive position in the market. Executives must not shirk their responsibility to prepare their company for change, and the first step in this process is AI training.
- Beyond doing it out of responsibility, companies should invest in AI training out of a sense of opportunity: because by doing so, they will get ahead of their competitors and grow their business.

Who should receive AI training in the company?

- **Engineers**: must be trained in the technical specifics of AI such as data collection, AI application development, and project execution.
- **Managers**: need to understand how AI will affect daily operations and how they can supervise and manage AI-related teams.
- **Leaders**: must have a strategic understanding of how AI can influence and benefit the company as a whole, the strategy to follow, and how resources will be allocated.
- **AI Project Leaders**: those working directly on AI projects need training in technical and business feasibility analysis, resource allocation, and progress monitoring. (Source: "Keys to AI" book, AI Accelera).

Custom AI Training Plan in the company

- Introductory AI program: basic concepts and tools.
- Program to conduct the technical and business analysis prior to designing the AI introduction plan in the company.
- Program to carry out an AI pilot project in the company.
- Program to build an internal AI team.
- Program to design the company's AI strategy.

AI Training for Engineers

- Building AI applications in the company requires skills specific to Machine Learning Engineers, Software Engineers, and Product Managers. Until now, these skills were learned in separate programs for different professionals, but now integrated programs are emerging that train the new "AI Engineers."
- AI applications can be of various types (data, image, video, audio, etc.), but the universalization of AI in the company mainly comes from LLM Applications, which will soon evolve to be multimodal applications.

AI Engineer Training: Development of LLM Apps (1)

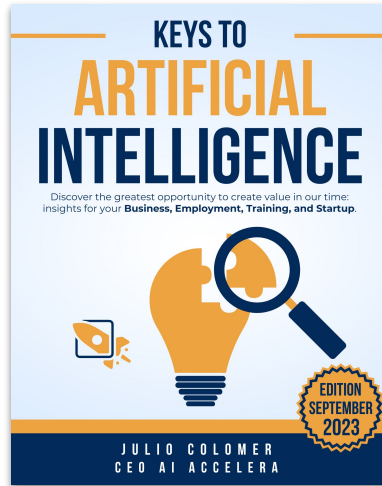
- Use cases for LLM Applications.
- Basic concepts of LLMs.
- Basic concepts of LLM Applications.
- Architecture of an LLM application.
- Basic concepts of the RAG technique.
- Orchestration frameworks: LangChain, LlamaIndex, or OpenAI API?
- Basic LangChain.
- LangChain LCEL.
- LangSmith, LangServe, LangChain Templates, LangChain chatbot.
- Introduction to the programming exercise block.
- Basic programming and LLM Apps: python, fastapi, javascript, react/nextjs.
- Basic concepts of the development environment.

AI Engineer Training: Development of LLM Apps (2)

- Level 1 applications: "toy demos" with LangChain.
- Level 2 applications: "toy demos" with LangChain and Streamlit UI.
- LlamaIndex.
- OpenAI API.
- Introduction to full-stack applications.
- Level 3 applications: full-stack apps with Langchain/Llamaindex, FastAPI, and Nextjs.
- LLM Applications: advanced concepts.
- Latency: speed of LLM Applications.
- Cost control of LLM Applications.
- LLMOps: evaluation, observability, guardrails, monitoring, etc.
- How AI engineers stay informed.

For more detailed information about this topic

- See Chapter 4 of the book "Keys to AI". Training for the New AI.
- Ebook included in the course. Physical book available on Amazon.



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