Course : Prompt engineering: Communicating effectively with artificial intelligences generating

Seminar - 1d - 7h00 - Ref. PEI
Price : 1100 CHF E.T.

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BEST

Prompt engineering is an emerging discipline aimed at optimizing communication with generative AI models. This course will enable you to understand the fundamental principles of prompt engineering and develop the skills necessary to create effective prompts that generate specific responses or perform precise tasks.

Teaching objectives

At the end of the training, the participant will be able to:

- Understand the architecture of ChatGPT.
- Familiarize themselves with the primary methods for writing prompts.
- Generate effective prompts using ChatGPT.
- Evaluate the limitations of an artificial intelligence (AI) system.

Intended audience

All individuals, especially employees who need to be informed and reassured as soon as possible about these new methods of accessing information.

Prerequisites

No specific knowledge required.

Course schedule

PARTICIPANTS

All individuals, especially employees who need to be informed and reassured as soon as possible about these new methods of accessing information.

PREREQUISITES

No specific knowledge required.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Why Generative AI Today?

- A timeline outlining the evolution of various AI paradigms, highlighting major inventions and innovations.
- A refresher on key concepts, including deep learning and neural networks (with emphasis on the number of parameters in a model).
- How ChatGPT was built: the fundamental differences between the Large Language Model (LLM) component and the conversational component.
- Potential limitations and biases arising from training data.
- Limitations related to content moderation and OpenAI's policies.
- Pricing models based on token usage, along with their advantages and drawbacks.

2 Basic Techniques in Prompt Engineering

- What is prompt engineering? Why is it essential for optimizing the use of language models?
- Structures of prompts: open-ended, closed, pre-filled, multiple-choice, confirmation, and error prompts.
- Creating effective prompts based on examples of tasks to be accomplished.
- The roles of context and task specificity, including considerations for prompt length.
- The Randomized Controlled Trial (RCT) method.
- Analyzing the pros and cons of AI-assisted decision-making.
- Identifying key biases (such as gender bias) and issues related to hallucinations.
- Recognizing topics that ChatGPT restricts and analyzing its sensitivity to context.

Demonstration

Creating and testing prompts for various tasks, with and without applying steerability; comparing responses; analyzing different AI outputs to identify inconsistencies or errors.

3 Enhancing the Quality of Interactions with an AI

- Generating prompts using ChatGPT.
- Exploring advanced use cases, including an example using a "thought tree."
- Detailing techniques for crafting effective prompts (precision, context, follow-up queries).
- The Princeton React method.
- How to use AI for writing assistance and learning.
- Automating data collection with ChatGPT.

Demonstration

Experimenting with complex prompt techniques in concrete use cases, comparing the performance of various prompts on given tasks, and raising awareness about chatbot vulnerabilities (e.g., Gandalf.AI).

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

4 Recognizing and Evaluating the Limitations of an AI

- Learning to identify the markers of AI-generated text (style, coherence).
- Proposing constructive improvements rather than merely dismissing AI outputs.
- Developing a multidimensional evaluation framework.
- Generating website code from a sketch.
- Understanding the concept of narrow AI versus strong AI and the future of Artificial General Intelligence (AGI).
- Comparing responses between ChatGPT and other tools with fewer parameters.

Demonstration
A comparative analysis where participants identify whether texts were written by humans or an AI, explain their reasoning, refine an AI-generated text using examples, and evaluate responses based on established criteria.

Dates and locations

REMOTE CLASS
2026 : 19 Mar., 19 Mar., 11 June, 11 June, 24 Sep., 3 Dec.