

COURSE GLOSSARY

Understanding Prompt Engineering

- **Prompt:** The input text or instruction given to an AI model that guides its response.
- **Prompt Engineering:** The practice of crafting effective prompts to improve the quality, relevance, and accuracy of AI-generated responses.
- **Zero-Shot Prompting:** Asking a model to perform a task without providing examples.
- **One-Shot Prompting:** Providing a single example in the prompt to guide the model's output.
- **Few-Shot Prompting:** Supplying multiple examples within a prompt to help the model understand the desired format or task
- **Chain-of-Thought Prompting:** A prompting method where reasoning steps are explicitly included in the prompt to encourage the model to explain its thought process.
- **Role Prompting:** A technique that assigns the model a persona or role (e.g., "You are a teacher") to shape its responses.
- **Instruction Tuning:** The process of training models to follow natural language instructions more reliably.
- **Context Window:** The maximum amount of text (input and output combined) that a model can handle at once.
- **Temperature (AI Models):** A parameter controlling randomness in model outputs. Higher values produce more diverse responses, while lower values make responses more deterministic.
- **Top-k Sampling:** A decoding method where the model considers only the top k most likely next words when generating text.
- **Top-p (Nucleus) Sampling:** A decoding method where the model considers the smallest set of words whose cumulative probability exceeds p.
- **Bias in Prompts:** Unintended influence in AI outputs caused by how prompts are phrased.
- **Hallucination (AI):** When a model generates content that is factually incorrect or nonsensical.
- **Grounding:** The process of ensuring model responses are aligned with factual or external knowledge sources.
- **Evaluation Metrics (Prompting):** Criteria such as relevance, coherence, and factual accuracy used to assess model responses.
- **System Prompt:** A predefined instruction that sets the overall behavior or tone of an AI model.
- **User Prompt:** The direct input from a human user in a conversational interaction.
- **Assistant Response:** The output generated by the AI in response to prompts.
- **Prompt Leakage:** When sensitive or hidden information in prompts unintentionally influences model outputs.
- **Adversarial Prompting:** Crafting inputs designed to trick or manipulate a model into producing undesirable outputs.
- **Iterative Prompting:** Refining prompts through trial and error to achieve better results.
- **Multi-Turn Prompting:** Engaging in back-and-forth prompting across multiple steps to guide the model toward a desired outcome.
- **Prompt Template:** A reusable structure or format for prompts that can be adapted for different tasks.
- **Effective Prompting:** Designing prompts that are clear, specific, and structured to maximize model performance.