Prompt Elements

crafting queries for Large Language Models (LLMs)

Instruction

Definition:

• This element clearly states what you want the model to do. It outlines the task or action you expect from the model.

Characteristics:

- Direct and clear language.
- Action-oriented verbs (e.g., Explain, Summarize, List, Compare).
- Specificity to avoid ambiguity.

• Example:

• "Summarize the main benefits of machine learning."

Context

Definition:

• Context provides additional background information relevant to the instruction. It helps the model understand the situation or parameters of the task.

Characteristics:

- Relevant details that enhance understanding.
- Clarity <u>without overwhelming</u> the instruction.
- Conciseness to maintain focus.

• Example:

 "In the context of healthcare applications, summarize the main benefits of machine learning."

Input Data

Definition:

• Input data includes any specific information, examples, or datasets you want the model to consider while generating the response.

Characteristics:

- Structured format (e.g., bullet points, lists) for clarity.
- Direct relevance to the instruction and context.
- Use of examples to guide the response.

• Example:

- "Given the following examples of machine learning applications in healthcare:
 - Disease prediction using patient data.
 - Personalized treatment recommendations based on genetic information. Summarize the main benefits of machine learning."

Output Indicator

Definition:

• The output indicator specifies how you would like the model to format its response, including any requirements for length, structure, or style.

Characteristics:

- Clear format specifications (e.g., bullet points, paragraphs).
- Desired length or word count.
- Tone and style preferences (e.g., formal, casual).

• Example:

• "Summarize the main benefits of machine learning in healthcare in bullet points, using no more than 100 words."

Combining All Elements

Complete Prompt:

"

Instruction: Summarize the main benefits of machine learning.

Context: In the context of healthcare applications.

Input Data: Given the following examples of machine learning applications in healthcare:

- Disease prediction using patient data.
- Personalized treatment recommendations based on genetic information.

Output Indicator: Provide your summary in bullet points, using no more than 100 words.

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Example from healthcare - Evaluating the Benefits of Telemedicine

Element	Definition	Example
Instruction	Clearly state the action you want the model to perform.	"Evaluate the benefits of telemedicine."
Context	Provide background information relevant to the instruction to guide the model.	"In the context of healthcare, where access to medical services is increasingly challenged by geographical barriers and the COVID-19 pandemic."
Input Data	Include specific examples or data points that the model should consider while generating the response.	"Consider the following benefits of telemedicine:
		- Increased access to healthcare for rural populations.
		- Reduced waiting times for consultations.
		- Improved patient monitoring through remote care.
		- Enhanced convenience for patients with mobility issues."
Output Indicator	Specify how you want the response to be formatted, including any length or structure requirements.	"Provide your evaluation in bullet points, highlighting at least three key benefits, and keep it under 150 words."