



## ChatGPT Prompt Engineering Guide: Basics to Best Practices

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### What is Prompt Engineering?

Prompt engineering is the practice of crafting effective input prompts to guide AI models like ChatGPT to produce accurate, relevant, or creative outputs. The goal is to communicate your intent clearly and efficiently.

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### Basic Prompt Structures

#### 1. Instruction-Based Prompt

2. *Example:* "Summarize the following article in 3 sentences."

#### 3. Question-Based Prompt

4. *Example:* "What are the advantages of renewable energy?"

#### 5. Role-Based Prompt

6. *Example:* "You are a professional resume writer. Rewrite this resume summary."

#### 7. Context + Task Prompt

8. *Example:* "Here is some code:

```
const add = (a, b) => a + b;
```

Explain what it does."

#### 9. Example-Based Prompt (Few-shot)

10. *Example:* "Translate the following to French:

- Hello → Bonjour
- Goodbye → Au revoir
- Thank you → ?"

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## Best Practices

- **Be specific:** Vague prompts give vague results. Clarify exactly what you want.
- Instead of: "Write about dogs."
- Use: "Write a 100-word paragraph about the health benefits of owning a dog."

- **Use role-playing when appropriate:** Tell ChatGPT who it should act as.
  - "Act as a travel agent and suggest a 5-day itinerary in Italy."
  - **Break down complex tasks:** Split big tasks into parts.
  - "First, generate 3 blog titles on productivity. Then write a short intro for the best one."
  - **Provide format examples:**
  - "Answer in bullet points."
  - "Output in JSON format."
  - **Specify tone/style:**
  - "Write in a professional and concise tone."
  - "Explain like I'm five."
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## Tips for ChatGPT Prompting

- **Add constraints:** e.g. word limit, perspective, or content type.
  - **Test and iterate:** Refine your prompt based on the output you get.
  - **Use delimiters** for clarity when including data or code: (e.g., triple backticks ````` for code).
  - **Try chain-of-thought prompting:** Encourage step-by-step reasoning.
  - "Think step-by-step and explain how you got the answer."
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## Advanced Prompting Techniques

- **Zero-shot prompting:** Ask a question without giving examples.
  - **Few-shot prompting:** Provide examples to teach the model a pattern.
  - **Self-reflection prompting:** "Explain your reasoning. Are there alternative answers?"
  - **System message (in API):** "You are a helpful assistant that always speaks in haikus."
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## 🔍 Prompt Debugging Checklist

- Did I clearly state the task?
  - Am I using the correct format/tone?
  - Should I break it down further?
  - Would examples improve it?
  - Is the output consistent and repeatable?
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## Suggested Practice Prompts

1. "Write a bedtime story for a 5-year-old about a space-traveling cat."
2. "Summarize this news article in 3 bullet points."

3. "Convert this table to JSON format."
  4. "Pretend you're a chef and describe how to make pasta carbonara."
  5. "Explain quantum physics in simple terms."
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Start simple. Experiment often. Improve continuously.

**Happy Prompting!**