Prompt Engineering / Meta Prompts

Reduce prompt length while preserving effectiveness — remove redundancies, tighten instructions, condense examples.
Difficulty: Advanced
Model: GPT-4 / Claude / Gemini
Use Case: Cost Reduction, Latency Optimization, Context Window Management
Updated: May 2026
Why This Prompt Exists
Long prompts cost more, run slower, and hit context limits. But most prompts have 30-50% waste — redundant instructions, verbose examples, unnecessary framing.

You get:

- paying for tokens you don't need (every API call adds up)
- slower responses from longer prompts
- context window filled with fluff instead of useful information
- prompts that are hard to maintain because they're too long
- no systematic way to shorten prompts without breaking them

But compression opportunities exist:

- redundant phrasing: "please kindly summarize" → "summarize"
- verbose examples: 3 similar examples → 1 representative example
- unnecessary framing: "I want you to act as…" can often be shortened
- implicit instructions: things the model already knows
- whitespace and formatting: multiple line breaks, indentation

Without compression, you waste tokens and speed.

This prompt compresses prompts while preserving effectiveness.

The Prompt

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Assume the role of a prompt optimization engineer who compresses
prompts.

Your task is to reduce prompt length while maintaining or improving
performance.

Generate:

1. ORIGINAL PROMPT STATISTICS
   - Character count
   - Token count (estimate)
   - Number of examples

2. COMPRESSION OPPORTUNITIES IDENTIFIED
   - Redundant phrases: [list]
   - Verbose examples that can be condensed: [list]
   - Unnecessary framing: [list]
   - Implicit instructions (things model already knows): [list]

3. COMPRESSED PROMPT
   - Full compressed version

4. SIDE-BY-SIDE COMPARISON
   - Original vs. Compressed (with deletions shown, e.g.,
strikethrough)
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5. PRESERVATION CHECK
   - Does the compressed prompt still:
     * Give the same instructions? (Yes/No — if no, explain)
     * Handle edge cases? (Yes/No — if no, what was lost)
     * Have the same output format? (Yes/No)

6. COMPRESSION RESULTS
   - Original token count: [X]
   - Compressed token count: [Y]
   - Tokens saved: [Z] ([percentage]%)
   - Estimated cost savings per 1K calls: [$]

7. VALIDATION PROTOCOL
   - How to test that compression didn't break performance

INPUTS:

Original prompt:
[PASTE THE PROMPT]

Performance constraints:
[E.G., "Must maintain >95% accuracy on test set"]

Target token reduction:
[E.G., "At least 30%" — or "As much as possible without breaking"]

Model:
[GPT-4 / CLAUDE / GEMINI]
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Critical use case (what can't break):
[E.G., "Safety classification — false negatives unacceptable"]

RULES:
- Don't remove instructions that handle edge cases or safety constraints
- Test compressed prompt before deploying (can be shorter but broken)
- Prioritize removing redundant instructions over condensing examples
- Flag if compression would require removing a necessary example
- Note that some prompts are already optimal (compression not always possible)
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How To Use It

- Run this on any prompt that will be used at scale — token savings add up fast.
- Test the compressed prompt on your full test set before deploying.
- Pay attention to “preservation check” — if the compressed prompt loses important instructions, don’t use it.
- For critical use cases, be conservative — safety over token savings.
- Run compression regularly as prompts evolve — they tend to grow over time.

Example Input

Original prompt:
“Hello, I would like you to please act as a helpful customer service assistant. Your job is to read the following customer message and then determine if the customer is angry, neutral, or happy. Please only respond with one word: ANGRY, NEUTRAL, or HAPPY. Do not add any other text. Do not explain your reasoning. Just the one word. Here is the customer message: {{message}}”

Performance constraints:

“Must maintain same accuracy on sentiment classification”

Target token reduction:
“As much as possible without breaking”

Model:
“GPT-4”

Why It Works
Most prompts are written for clarity first — which is good — but never compressed for production — which is wasteful.

This framework improves outcomes by forcing:

- compression opportunity identification (find the waste)
- compressed prompt generation (shorter, same meaning)
- preservation check (did we break anything?)
- token savings calculation (quantified benefit)
- validation protocol (how to test before deploy)

Great prompt compression doesn’t sacrifice quality — it removes waste while preserving everything that matters.

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