

Lesson 01 – Uncertainty-Indicator Prompting

Prompt Engineering Mini-Series

1. What & Why

Definition – Add explicit instructions that make the LLM qualify each of its statements with a confidence estimate (qualitative or quantitative) + optional justification.

Why it matters	Notes
<i>Fight hallucinations</i>	Confidence flags draw attention to low-certainty areas.
<i>Cross-discipline value</i>	Research, legal, product, and support teams can judge when to verify.
<i>Grows AI literacy</i>	Highlights that LLMs produce probabilistic estimates, not facts.

2. Confidence Scales

Scale	Usage
High / Medium / Low 0–100 %	Easiest for non-technical users. Good when you need finer granularity or thresholds (e.g., <i>cite when < 80 %</i>).

Suggested rubric

High > 85 % · *Medium* 60-85 % · *Low* < 60 %

3. Basic Prompt Pattern

<Your question or task>

Return a table:

Claim | Confidence (H/M/L) | Reason (15 words).

Use the rubric: High > 85 %, Medium 60-85 %, Low < 60 %.

Cite a source whenever Confidence is Medium or Low.

4. Hands-On Templates

Template A – Research Brief with Confidence

You are an analyst preparing an internal briefing.

Topic: {{TOPIC}}

Scope: {{TIME_RANGE}} | Region: {{REGION}}

Provide 5 key findings in a table

Finding | Confidence (H/M/L) | 1-sentence reason (15 words).

Template B – Decision Memo Risk Scan

Act as a risk-management officer.

Decision: {{DECISION}}

List top 5 risks with

Likelihood% | Impact (1-5) | Mitigation (1 line).

Compute Residual-risk = avg(Likelihood*Impact)

State overall confidence (H/M/L).

Template C – Creative Subject Lines + Originality Score

Write three email subject lines promoting {{PRODUCT}} to {{AUDIENCE}}.

After each, append " Originality confidence: X%".

5. Quick Cheat-Sheet

Uncertainty-Indicator Prompting

Pattern → Task Claim + Confidence (+ Reason/Citation)

Pro Tips

- Ask for justification on Med/Low
 - Combine with Chain-of-Thought
 - Treat confidence as heuristic, not truth
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6. Caveats & Best Practices

- Models can still over-estimate themselves → validate critical info.
- Confidence mathematical probability; treat as risk indicator.
- Keep reasons short to avoid verbosity.

7. 60-Minute Class Agenda

Min	Activity
0-5	Mini-lecture
5-20	Hands-on A
20-35	Hands-on B
35-50	Hands-on C
50-55	Q & A
55-60	Wrap-up & teaser
