

Lab 3 : Precision Prompting for Information Extraction

Objective:

Learn to design prompts that direct ChatGPT to produce structured, machine-readable output (e.g., JSON or tables) for easier data extraction.

Key Concepts:

- **Precision Prompting:** Crafting specific prompts that ask the AI to format its output in a structured way.
 - **Structured Formats:** Commonly JSON objects, tables, or bullet lists that make data easy to parse.
 - **Information Extraction:** Pulling key details like contact info, resume sections, or keywords from unstructured text.
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Example Prompts and Outputs

1. Extract Contact Information

Prompt:

Extract the contact information from the following paragraph and format it as JSON:
"John Doe can be reached at johndoe@example.com or (555) 123-4567. His office is located at 123 Elm Street, Springfield."

Expected Output (JSON):

Criteria	Description	Example Check
Completeness	All requested fields are present	All contact info fields included in JSON
Correctness	Extracted info matches source text	Phone number and email are accurate
Format	Output follows requested structure	Valid JSON syntax, or properly
Consistency	(JSON/table)	formatted table
Clarity	Information is clear and unambiguous	No extraneous or missing data

Sample Lab Submission Format

Prompt Used	Output Format	Output Accuracy (Y/N)	Comments
Extract contact info in JSON	JSON	Yes	All fields correctly extracted
Extract resume sections	JSON	Yes	Skills listed as array
Extract keywords from	Bullet List	Yes	Keywords relevant and

Prompt Used	Output Format	Output Accuracy (Y/N)	Comments
paragraph			clear