# Magma-8B Multi-Technique Analysis Report

**Generated:** 2025-06-11 08:54:32 **Model:** Microsoft Magma-8B

Task/Prompt: Where is the laptop located?

# **Input Image**



# **Analysis Results**

## STANDARD Technique

Direct prompting without additional reasoning steps

## Response:

Desk

## **COT Technique**

Chain-of-Thought: Step-by-step reasoning before final answer

#### Response:

The laptop is located on top of a wooden bookshelf in a library-like room. This suggests that the room might be used for studying or working, as it has a desk and chair setup nearby. It could also imply that the person who uses this space prefers to have their work area close to their book collection, possibly indicating an interest in both traditional and digital resources. The presence of a

calendar on the wall further supports the idea of a workspace where time management is essential.

# **COD Technique**

Chain-of-Draft: Draft thoughts followed by refined response

#### Response:

On desk.

## **COT\_CONSISTENCY Technique**

Self-Consistency: Multiple reasoning paths with majority voting

### **Majority Vote Result:**

The laptop is located on top of the desk.

#### All Samples:

Sample 1: The laptop is located on top of the desk.

Sample 2: The laptop is located on top of the desk.

Sample 3: On desk.

Sample 4: The laptop is located on top of the desk in front of the computer monitors.

Sample 5: The laptop is located on the desk, next to the keyboard and mouse.

# **Analysis Summary**

This report compares four different prompting techniques applied to the Magma-8B vision-language model. Each technique has different strengths:

- Standard: Fast and direct, good for simple tasks
- CoT: Better reasoning for complex tasks requiring step-by-step thinking
- CoD: Iterative refinement for improved response quality
- CoT-Consistency: Most robust but computationally expensive, reduces hallucinations