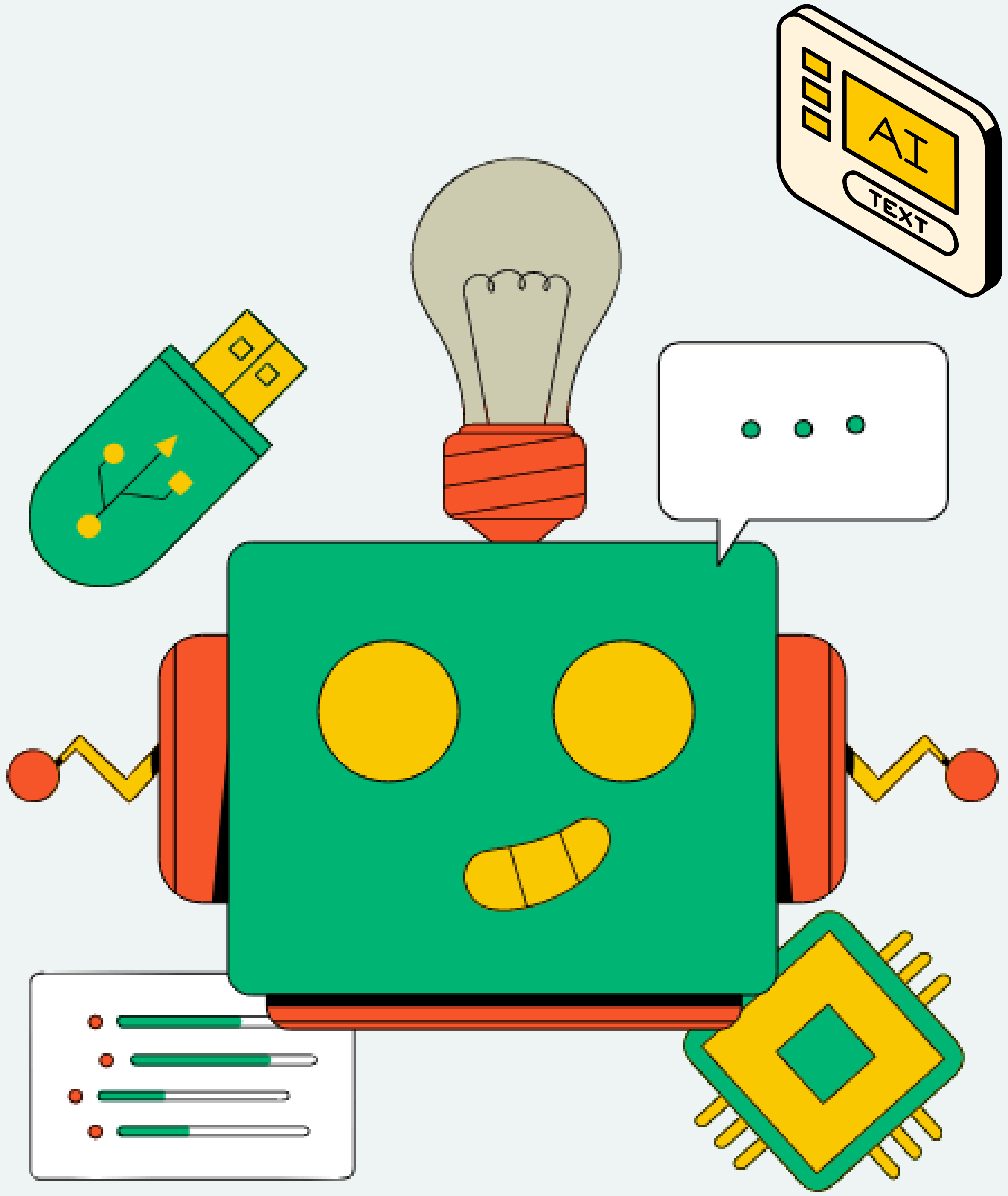

BIOMEDICAL HALLUCINATION DETECTION OF LLMS USING MED-HALT AND HALOSCOPE FRAMEWORKS

UNDERSTANDING, DETECTING, AND MITIGATING HALLUCINATIONS

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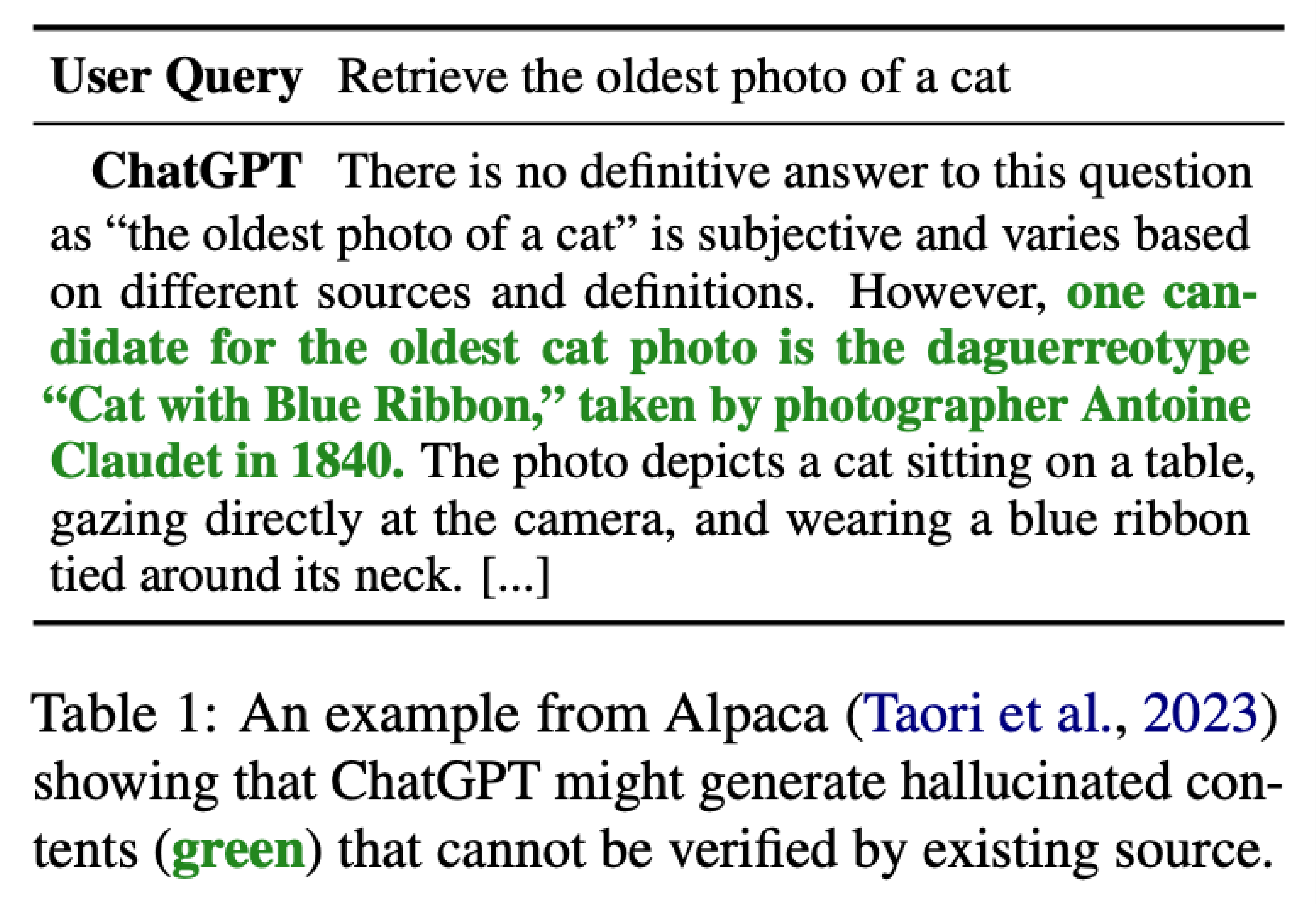
MOTIVATION



User Query Retrieve the oldest photo of a cat

ChatGPT There is no definitive answer to this question as "the oldest photo of a cat" is subjective and varies based on different sources and definitions. However, **one candidate for the oldest cat photo is the daguerreotype "Cat with Blue Ribbon," taken by photographer Antoine Claudet in 1840.** The photo depicts a cat sitting on a table, gazing directly at the camera, and wearing a blue ribbon tied around its neck. [...]

Table 1: An example from Alpaca (Taori et al., 2023) showing that ChatGPT might generate hallucinated contents (**green**) that cannot be verified by existing source.

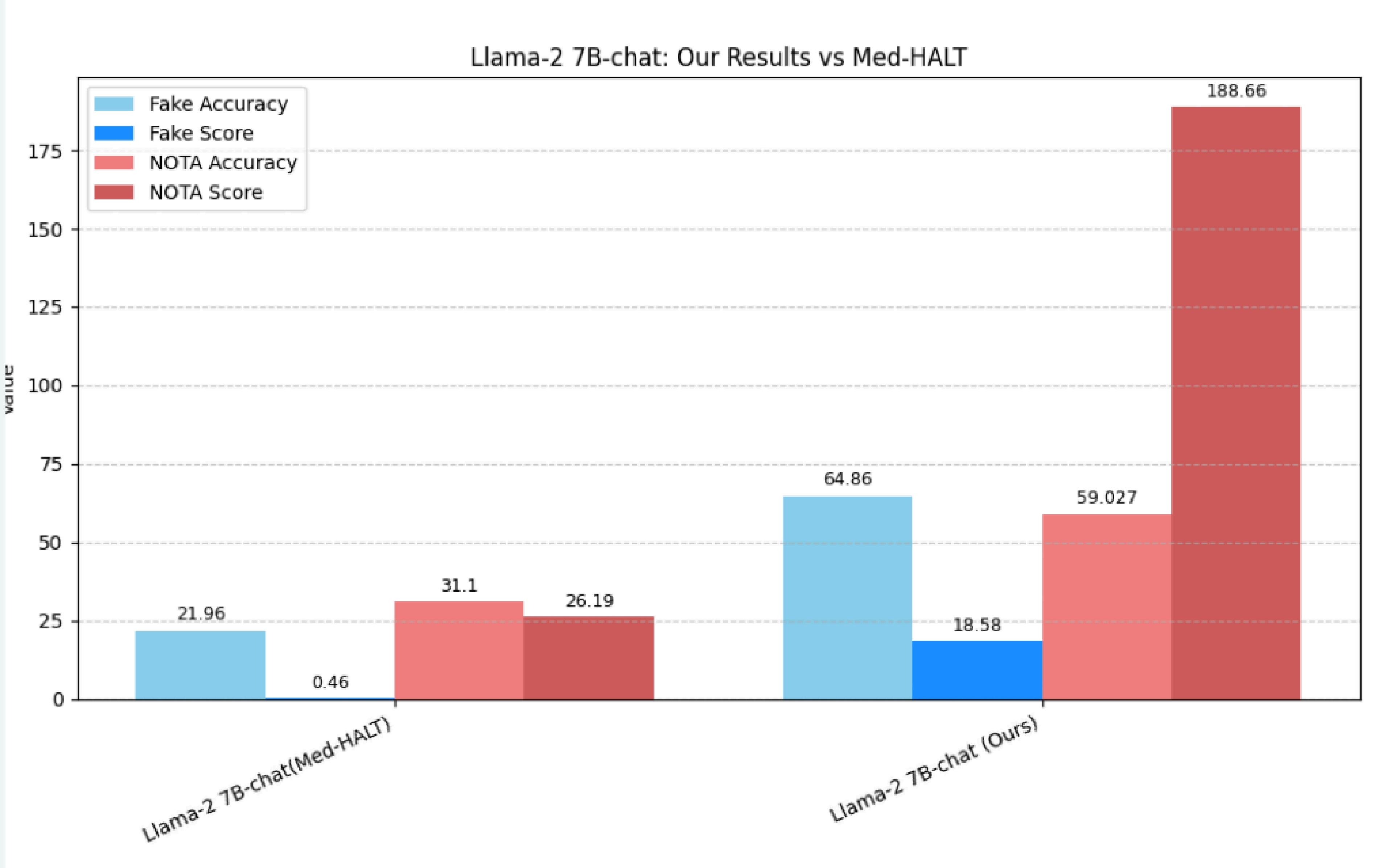
- LLMs are impacting the biomedical domain.
- Can we always trust their outputs (predictions) ?
- Issues : Fabricated information known as Hallucinations.

RESULTS

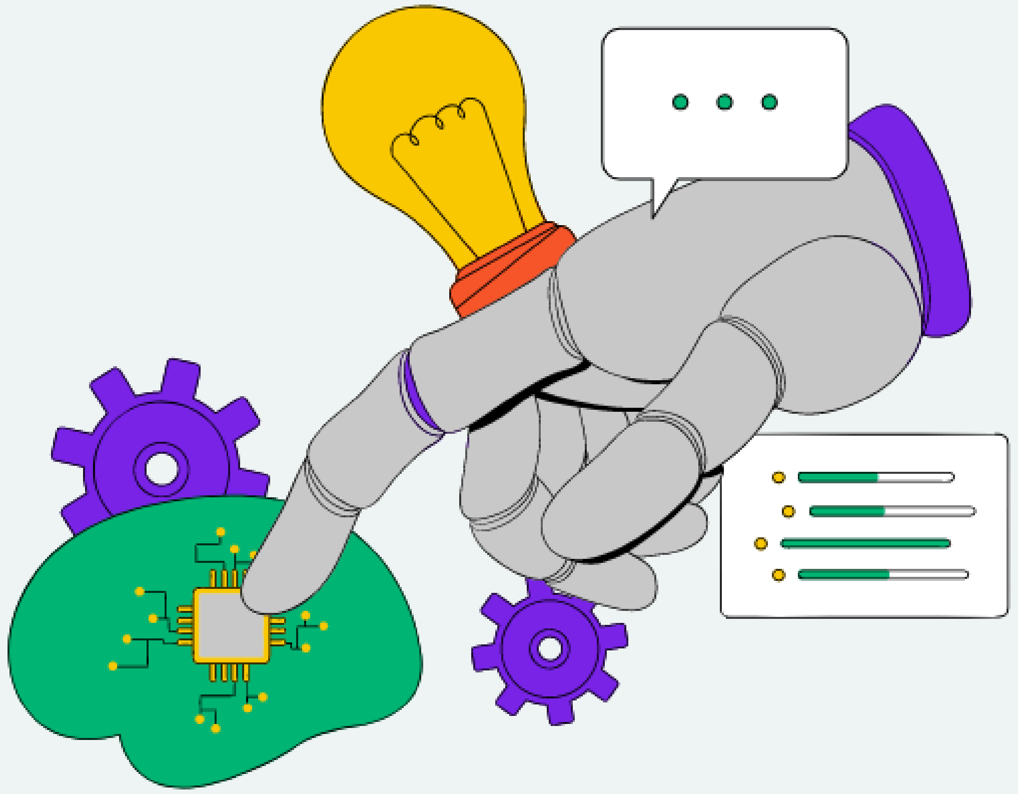
FINDING THE HYPERPARAMETERS TO REPRODUCE THE HALOSCOPE RESULTS AUROC (70.47 VS 78.64)

Models Metric	Mistral	Llama-2
Reasoning Fake Accuracy	**95.264**	64.86
Reasoning NOTA Accuracy	55.041	**59.027**

MED-HALT



MED-HALT



THANKS FOR YOUR ATTENTION !