

Peer Review

Review of: "100% Hallucination Elimination Using Acurai"

Alberto Gandolfi¹

1. Division of Science, New York University, Abu Dhabi, United Arab Emirates

This paper introduces Acurai, a systematic approach to eliminate hallucinations in large language models (LLMs) by reformatting queries and context data, achieving 100% accuracy in textual and factual correctness.

The topic of freeing LLMs from hallucinations is extremely relevant, and the proposed procedure appears very appropriate for significantly improving textual accuracy and factual correctness, surpassing the capabilities of current retrieval-augmented generation (RAG) systems. The technique is innovative for several reasons: focus on Noun-Phrase Dominance, which aligns with recent findings from OpenAI and Anthropic, and collisions avoidance; FFFs, systematic preprocessing and postprocessing, a structured and repeatable process that can be applied across different LLMs and use cases; success on the RAGTruth corpus, achieving 100% hallucination-free responses across multiple datasets.

However, the paper primarily addresses hallucinations related to factual retrieval and textual accuracy. There are many other forms of hallucinations that rely more on logical reasoning, linguistic accuracy, or user preferences, such as calculations, code generation, translation, personalized recommendations, and data interpretation. These aspects are not covered by the proposed method.

Therefore, we strongly suggest revising the title and overall description to clarify that the method achieves 100% hallucination elimination specifically in the realm of textual accuracy and factual correctness, rather than implying a universal solution to all forms of hallucinations. This adjustment would provide a more accurate representation of the paper's contributions and scope.

Additionally, it is not entirely clear how the system would actually work in practice. Would users interact with LLMs via an Acurai platform, or is the plan to integrate Acurai into existing LLM systems (e.g., enterprise chatbots or RAG pipelines) as a preprocessing and postprocessing module? Clarifying

the practical implementation would help users and developers understand how to adopt and benefit from this technology.

Despite these considerations, Acurai represents a significant step forward in addressing hallucinations in LLMs and holds promise for broader applications in AI systems.

Declarations

Potential competing interests: No potential competing interests to declare.