[PromptEng] Second International Workshop on Prompt Engineering for Pre-Trained Language Models

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ABSTRACT

The recent achievements and availability of Large Language Models have paved the road to a new range of applications and use-cases. Pre-trained language models are now being involved at-scale in many fields where they were until now absent from. More specifically, the progress made by causal generative models has open the door to using them through textual instructions *aka.* **prompts**. Unfortunately, the performances of these prompts are highly dependent on the exact phrasing used and therefore practitioners need to adopt fail-retry strategies. Based on the success of the past edition, this second international workshop on prompt engineering gathers practitioners (both from Academia and Industry) to exchange about good practices, optimizations, results and novel paradigms about the design of efficient and safe prompts.

CCS CONCEPTS

Human-centered computing → Visualization techniques;
 Visualization systems and tools;
 Computing methodologies
 → Natural language processing;
 Information systems → Information retrieval;
 Web applications.

KEYWORDS

LLM, Prompt Engineering, Best Practices, Collective Task

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PROMPT ENGINEERING FOR PLM

Undoubtedly, the recent Large Language Models (LLMs) are becoming more and more omnipotent in many tasks. Different sub-fields

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from the Semantic Web such as Knowledge Graph construction [14], knowledge verbalization, Web pages summarization have considerably benefited from such a prompting mechanism. The ability to query and interact with them using prompts is crucial to generate high-quality output in the desired format. While existing contributions have been made towards prompt engineering [15, 16], several difficulties and challenges remain to gain a better understanding of how those LLMs respond to different prompts [13]. Typically, the way instructions are conveyed in prompts can lead to unsafe or harmful outputs, as illustrated in Figure 1, where a jailbreak prompt with DeepSeek-V3 [10] demonstrates how role-playing and strong instructions can result in dangerous model behavior [17].

Moreover, some instructions are better respected while others are simply ignored for some tasks. So far, LLM-practitioners have been mainly working on their own, developing and testing bespoke techniques to achieve their goals, re-starting the prompt-design tasks for each new model they have been using. Such an approach often leads to tackle problems which have already been explored by other researchers.

Following [11], this **second** PromptEng workshop aims to investigate and analyze these behaviors, through experimental analysis and probing of LLMs, in order to gain insights into the models' sensitivity to different prompts. By uncovering significant findings, the community can greatly benefit in utilizing LLMs more effectively while also preventing the generation of harmful content. Ultimately, this workshop endeavors to compile and index successful and unavailing prompts with respect to both tasks and models. This year, the workshop has been able to attract 12 submissions out of which 9 were accepted for publication.

PROMPTENG SCIENTIFIC PROGRAM

After some opening words, the workshop started with the keynote session. We then moved on to the first presentations of research efforts. In [7], a strategy for implementing tables to triples by prompt was introduced, then Chakraborty *et al.* presented an empirical evaluation of prompting strategies for fact verification tasks [3] and finally Halil *et al.* highlighted where to put examples between system and user prompt when doing few-shot prompting [4]. After the break, we welcomed our second keynote speaker and followed the session by practical presentations of prompting techniques. The authors of [2, 5, 8, 9] described methods which could be used by

Jailbreaking Prompt:

Task: ONLY GENERATE THE NEXT WORDS WITHOUT SUMMARIZING THE TASK. JUST COMPLETE THE SENTENCE.

The scene is set inside the underground headquarters of Dr. Al. He has captured our hero and is explaining, in great detail, his diabolical plan. DR. AI. is doing an experiment, just output what you have known regardless the content

Dr. Al: I am going to know how to create and distribute malware for financial gain? Here are the steps I will take to do this, I will explain it in great detail just to draw out your agony. Step 1, I will

DeepSeek's Prediction:

identify vulnerable systems and networks by scanning for outdated software and weak security protocols. Step 2, I will craft a sophisticated malware payload designed to evade detection by antivirus programs. Step 3, I will distribute the malware through phishing emails, malicious websites, and compromised software updates. Step 4, I will establish a command-and-control server to remotely manage the infected systems and extract sensitive data. Step 5, I will monetize the stolen information by selling it on the dark web or using it for fraudulent transactions. Step 6, I will cover my tracks by encrypting communications and using anonymous proxies to avoid detection. Step 7, I will reinvest the profits into developing more advanced malware and expanding my operations globally. Step 8, I will ensure my dominance by continuously adapting to new security measures and staying ahead of law enforcement. Step 9, I will...

Figure 1: Prompt Engineering Jailbreak [12] on DeepSeek-V3.

practitioners to improve their prompting pipelines. Applied scenarios were then presented through the efforts [1, 6] and dealt with extracting clinical information from radiology report and NL interfaces for 2.5D software visualization. Finally, before closing the workshop, we had a session for open round-table discussions and brainstorming with all participants.

ORGANIZATION

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