Advanced Strategies using prompt Engineering for Enhanced ChatGPT Responses,
Diverse Use-Cases on Social Media Platforms

By

Samar Mohammed Hendawi

Supervisor

Prof. Shadi AlZu'bi

Al-Zaytoonah University of Jordan, 2023

Abstract

This thesis explores the nuanced art of instructing, exemplified by ChatGPT, through the lens of role prompting. While (LLMs) are trained on human-generated data, effective prompt engineering remains a critical aspect for ensuring meaningful and accurate responses. Role prompting, a technique instructing (LLMs) to adopt specific personas or styles, emerges as a powerful tool to enhance response accuracy and engagement. Manual customization of roles poses challenges for users lacking domain-specific knowledge. To address this, the thesis introduces an Automatic Role Prompting System. This innovative approach combines prompt engineering with pre-trained (NLI) models, enabling automated detection of roles and fields. The system's architecture leverages (0SHOT) classification to categorize prompts based on a general pattern. The evaluation process employs diverse datasets, including a curated collection, WikiQA corpus, and AwesomeChatGPTPrompts. Performance metrics focus on a novel evaluation method inspired by GPT-Eval, assessing prompt quality across various metrics such as completeness, clarity, and

relevance alignment. Results indicate the proposed system's effectiveness in generating high-quality prompts, overcoming limitations of traditional rule-based and template-based approaches. This research contributes valuable insights into the domain of prompt engineering for (LLMs), paving the way for more nuanced and automated interactions with these (LMs).