Title : Artificial Intelligence Chatbot for Online Data Analytics using LLMs

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This research aims to develop a tool for analyzing tabular data using a Large Language Model (LLM) to facilitate data summarization, in-depth question answering, and visualization generation based on user prompts. This system enhances the efficiency, speed, and accessibility of data analysis while providing deeper insights. This study incorporates advanced technologies, including AI Agents, LangChain, Typhoon (a Thai-language LLM), and Streamlit, to develop a chatbot for data analysis. The system allows users to select the most appropriate model Typhoon-V2 for processing needs. The evaluation results indicate that the model demonstrates high performance in importing, retrieving, analyzing, and visualizing data. However, certain limitations remain in data analytics and the representation of specific types of visualizations. The system's performance assessment suggests that, while it effectively supports data analysis, further improvements are required to enhance the accuracy of responses to complex queries and to refine in-depth data analysis capabilities. Future developments may include expanding the model's capacity and integrating diverse data sources to better fulfill user demands and improve overall system efficiency.

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