

Research and development of an Agentic RAG system to support knowledge reasoning on regulatory and pharmacological data in the healthcare domain.

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Abstract: In the current context, the application of artificial intelligence (AI) in medical decision support systems is receiving increasing attention. This topic focuses on researching and developing an Agentic Retrieval-Augmented Generation (RAG) system, a new method aimed at enhancing knowledge reasoning capabilities from complex data related to medical regulations and pharmacology. The objective of the topic is to build a system that can automate the process of information collection and knowledge synthesis, supporting medical experts in making decisions based on rich and diverse data sources. The method combines machine learning theory with experimentation to ensure the system's effectiveness. The topic is expected to make a significant contribution to the development of AI technology in the medical field, while providing useful solutions for medical experts.

Keywords: Agentic RAG, knowledge reasoning, regulatory data, pharmacology, medical decision support