Health Diagnostic Assistant using LLMs

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Abstract*: The Health Diagnostic Assistant leverages advanced Large Language Models (LLMs) and Natural Language Processing (NLP) techniques to enhance patient diagnosis and healthcare decision-making. This innovative system employs Retrieval-Augmented Generation (RAG) to combine the strengths of pre-trained language models with a dynamic retrieval mechanism, allowing it to access and synthesize real-time medical knowledge from a wide array of databases. By analyzing patient symptoms, medical histories, and contextual data, the assistant generates accurate, context-aware recommendations and insights. The project aims to streamline the diagnostic process, reduce the burden on healthcare professionals, and improve patient outcomes by providing evidence-based suggestions tailored to individual cases. Through continuous learning and integration of user feedback, the Health Diagnostic Assistant aspires to evolve into a reliable tool for both patients and clinicians, fostering informed decision-making in the healthcare landscape.*

Keywords: LLM, NLP, RAG, Medical History, Healthcare Professionals