

Medigenie: AI-Powered Clinical Intelligence System in Healthcare

Vaibhav Kusalkar, Sarvesh Biwalkar, Atharv Bhujbal, Tushar Bansod, Prof. Rohini Jadhav

Department of Computer Engineering

Smt. Kashibai Navale College of Engineering, Pune, India

vaibhavgusalkar24@gmail.com, sarveshbiwalkar@gmail.com, atharvkbhujbal@gmail.com,

tusharbansod.skn.comp@gmail.com, rohini.jadhav_skncoe@sinhgad.edu

Abstract: *MediGenie Virtual Health Assistance is an innovative project designed to provide users with personalized medical insights by leveraging natural language processing (NLP) and machine learning algorithms. The system allows clients to communicate with a virtual health assistant through natural language input, describing their symptoms and medical concerns. Using advanced NLP techniques, the system interprets the input and processes the data to identify and prioritize potential health conditions. By integrating machine learning models trained on extensive medical datasets, MediGenie analyses the symptoms provided by the client to calculate the top five possible diseases or conditions. These predictions are based on patterns identified from past cases, medical literature, and symptom correlation. The virtual assistant also offers further guidance, such as recommending medical specialists or suggesting next steps for the client to take.*

The core goal of MediGenie is to deliver accessible, reliable, and efficient preliminary health assessments, helping users make informed decisions about their health while streamlining the diagnostic process for healthcare professionals.

Keywords: Virtual Health Assistance, personalized medical insights, large language models, health assessments

