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An AI-Powered Decision Support System for Preliminary Disease Diagnosis and Health Advising

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Abstract: *The creation of reliable and approachable tools for disease detection and health advising is of utmost relevance in a time of rapid breakthroughs in artificial intelligence and healthcare technology. This study introduces a brand-new AI-driven decision support tool that helps users make a preliminary diagnosis of potential medical issues based on reported symptoms. The system uses a Decision Tree algorithm and makes use of large databases that include descriptions of diseases, their symptoms, and preventative methods. Individuals input their symptoms through an intuitive interface, and an algorithm navigates a decision tree structure to provide accurate disease predictions. The system offers comprehensive details on the anticipated illness, including a description and suggested safety measures.*
This study examines the system's design, evolution, and operation with a focus on how it might enhance early disease detection, healthcare accessibility, and user empowerment in making wise health decisions. The report also emphasizes the importance of the Decision Tree algorithm in the project and demonstrates its efficiency in diagnosing diseases from symptom patterns. The technology has the potential to be widely used in the medical industry and beyond, ultimately enhancing healthcare services and enabling early intervention for better patient outcomes

Keywords: AI-driven decision support tool, DecisionTree algorithm, Disease detection

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