

MedAI Pro: Intelligent Multi-Disease Prediction and Healthcare Recommendation Using Machine Learning

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Abstract

Chronic diseases such as diabetes, hypertension, cardiovascular disease, and chronic kidney disease (CKD) require early diagnosis to improve treatment outcomes and preventive healthcare. This study presented MedAI Pro, an AI-powered multi disease prediction and healthcare recommendation system developed using machine learning techniques. Healthcare parameters including age, blood pressure, blood sugar, cholesterol, BMI, smoking habits, and physical activity were analyzed to predict disease risks. Machine learning algorithms such as Random Forest, Logistic Regression, and Decision Tree were implemented to enhance prediction accuracy. The system was developed using Python, Flask, SQLite, HTML, CSS, and JavaScript, providing real-time disease prediction, BMI analysis, personalized healthcare recommendations, AI chatbot assistance, admin monitoring, and PDF report generation. Experimental results demonstrated the effectiveness of the proposed framework in supporting early disease detection and preventive healthcare through an accessible and user-friendly platform.

Keywords

Artificial Intelligence, Machine Learning, Multi-Disease Prediction, Healthcare Recommendation, Preventive Healthcare, AI Chatbot.