

Smart Health Prediction System

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Abstract: *The use of smart health technologies along with new breakthroughs in machine learning (ML) have greatly enhanced the quality of predictive healthcare. This paper describes a smart health prediction system which analyzes patient data such as lifestyle and wearable sensor data to give an early warning of critical health conditions, in this case diagnosing stroke risk.*

The system performs electronic health record (EHR) integration (combining data from multiple sources) and data warehousing (with the addition of clinical data), and applies predictive models like logistic regression, random forests, and neural networks to pattern extraction and event prediction of losing health.

The aim is to assist with timely clinical interventions, reduce emergency interventions, and improve the health of patients. Important issues like the privacy of information, explainability of the model, and working practically in real time are covered. This system illustrates how AI-powered instruments can transform preventive healthcare and advance personalized medicine..

Keywords: Smart Health, Machine Learning, Predictive Healthcare, Health Monitoring, Electronic Health Records (EHR), Artificial Intelligence in Medicine

