Computer-aided system for extending the performance of diabetes analysis and prediction

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ABSTRACT

Every year, diabetes causes health difficulties for hundreds of millions of individuals throughout the world. Patients' medical records may be utilized to quantify symptoms, physical characteristics, and clinical laboratory test data, which may then be utilized to undertake biostatistics analysis to uncover patterns or characteristics that are now undetected. In this work, we have used six machine learning algorithms to give the prediction of diabetes patients and the reason for diabetes are illustrated in percentage using pie charts. The machine learning algorithms used to predict the risks of Type 2 diabetes. User can self-assess their diabetes risk once the model has been trained. Based on the experimental results in AdaBoost Classifier's, the accuracy achieved is almost 98 percent.

KEYWORDS

Diabetes; AdaBoost Classifier; Random Forest Classifier; K-Nearest Neighbors Classifier; Bernoulli NB; MLP Classifier and Impact Learning; Cloud Computing

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