Using AI approach and big data architecture to enhance heart disease Diagnosis

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Abstract

Big data is the fuel that revives the economy for many countries as several countries rely on the huge data available in the world to benefit from it in many key areas in general and health care in particular, an important element in human life. People that need it to make the required analysis to attain the information to predict diseases use big data. The most important of these diseases are heart disease, which greatly affects the number of human deaths. In previous years, people use traditional methods to analyze this data to attain the information to predict heart disease, where the percentage of accuracy in the analysis is very low. However, with the development of the world and the progress of science, there are many methods to predict heart disease, and their accuracy varies, including high prediction accuracy. Though some of them have low prediction accuracy, they remain better than traditional methods of prediction. Many algorithms have been used in predicting heart diseases, such as Random Tree, Naïve Bayes, Decision Tree, and Random Forest. The support vector machine (SVM) algorithm is used in this research by utilizing the Rapid miner platform to analyze several data to give a good analysis rate in predicting heart disease.

Keywords: Healthcare, Support Vector Machine، Machine Learning, Big Data, Heart disease, Correlation