LITERATURE SURVEY - Visualization and Prediction of Heart Diseases.

The main aim of this paper is to use various classification algorithms of data science framework to somehow detect the chances of having a heart disease. Also, the main aim of this research paper is to find out the most efficient classification algorithm that can help us to detect heart diseases at early stage.this algorithm can be used on heart records of the patient or by using it on classification reports. This research was conducted and tested upon various algorithms to test its accuracy like Logistic Regression, Random Forest, Vector Support and XG-Boost. After applying these algorithms of prediction model hasbeen developed

S. Mohan et al. (2019) suggested a hybrid machine learning technique to predict heart disease which enhances performance level with an accuracy level of 88.7% through the prediction model for heart disease with the hybrid random forest with a linear model (HRFLM). The severity of the disease is classified based on various methods like K-Nearest Neighbor Algorithm (KNN), Decision Trees (DT), Genetic algorithm (GA), and Naive Bayes (NB). The performance of this method can be estimated from the accuracy in the outcome results based on ECG data.

C. Beulah Christalin Latha et al.(2019) improving the accuracy of prediction of heart disease risk based on ensemble classification techniques, to improve the performance, weak classifiers and ensemble algorithms are used, this work has used ensemble algorithms such as bagging, boosting, voting, and stacking. Some of the techniques used for such prediction problems are the Support Vector Machines (SVM), Neural Networks, Decision Trees, Regression and Naïve Bayes classifiers. This work has usedensemble algorithms such as bagging, boosting, voting, and stacking

Patel, J., Upadhyay, P. and Patel, D. (2016) Heart Disease Prediction Using Machine learning and Data Mining Technique

Heart disease is the main reason for death in the world over the last decade. Almost one person dies of Heart disease about every minute in the United States alone. Researchers have been using several data mining techniques to help healthcare professionals in the diagnosis of heart disease. However using data mining technique can reduce the number of test that are required. In order to reduce number of deaths from heart diseases there have to be a quick and efficient detection technique. Decision Tree is one of the effective data mining methods used. The goal of this study is to extract hidden patterns by applying data mining techniques, which are noteworthy to heart diseases and to predict the presence of heart disease in patients where this presence is valued from no presence to likely presence.

Hazra, mandal s, gupta, a. and mukherjee, a. (2017) heart disease diagnosis and prediction using machine learning and data mining techniques.

A popular saying goes that we are living in an "information age". Terabytes of data are produced every day. Data mining is the process which turns a collection of data into knowledge. The health care industry generates a huge amount of data daily. However, most of it is not effectively used. Efficient tools to extract knowledge from these databases for clinical detection of diseases or other purposes are not much prevalent. The aim of this paper is to summarize some of the current research on predicting heart diseases using data mining techniques, analyse the various combinations of mining algorithms used and conclude which technique(s) are effective and efficient. Also, some future directions on prediction systems have been addressed.

Aditi Gavhane et al. (2018) suggested a Neural Network model to predict heart diseases. It takes age, sex, blood pressure, heart rate, diabetes, cholestral and BMI as input into the Multilayer Perceptron algorithm. The sensors like AliveKor, MyHeart, HealthGear and Fitbit generate the parameters for the algorithm.

Ashok Kumar Dwivedi et al.(2018) performance evaluation of different machine learning techniques for prediction of heart disease, six machine learning techniques have been applied including artificial neural network (ANN), support vector machine (SVM), logistic regression, k-nearest neighbor (KNN), classification tree and Naive Bayes. Moreover, the performance was compared using receiver operating characteristic (ROC) and calibration graph, the highest classification accuracy of 85% was reported using logistic regression with sensitivity and specificity of 89 and 81%.