Literature survey

For

Visualizing and predicting heart disease with an interactive dashboard

Title	Author	Year released	Concept
PREDICTING HEART DISEASE	M. Preethi1, Dr. J. Selvakumar	2008	This paper describes various methods of data mining, big data and machine learning models for predicting the heart disease. Data mining and machine learning plays an important role in building an important model for medical system to predict heart disease or cardiovascular disease. Medical experts can help the patients by detecting the cardiovascular disease before occurring. Now-a-days heart disease is one of the most significant causes of fatality. The prediction of heart disease is a critical challenge in the clinical area. But time to time, several techniques are discovered to predict the heart disease in data mining. In this survey paper, many techniques were described for

			predicting the heart disease.
Design and Development of Real-Time Heart Disease Prediction System for Elderly People Using Machine Learning	Guttappa Sajjan	2019	Everyday blood is pumped to all parts of the body by the heart. It beats 100,000 times and pumps around 19000 litres of blood through our body (Lett, Ali and Whooley, 2008). The blood delivers oxygen and nutrients to our tissues and carries away waste. Various types of heart diseases are caused due to the abnormalities in normal blood flow. The heart related diseases are which are commonly known as cardiovascular disease (CVD). World Health Organization reports that CVD contributes to 31% of the overall deaths compared to other diseases. Percentage of deaths due to CVD is found to be increasing with age. The percentage of deaths due to CVD is 11.8% for people between 20-39 years, 38.55% for those in 40-59 years of age and 73.3% for those between 60-79 years (Nag and Ghosh, 2016). Therefore, it would be very useful to have a system to detect cardiac abnormalities at an early stage and necessary tools to predict heart disease can save many lives.

to BIG DATA ANALYTICS IN HEART DISEASES PREDICTION	Ahmed Ismail, Samir Abdlerazek, I. M. El-Henawy	2005	The healthcare data can be employed to develop a health prediction system that can improve in heart disease prevention. Big data on health care, including patient records, clinical notes, diagnosis, parents and family past ailments, hospitals, and scan results can aid in the phase of disease identification and prediction. The emerging machine learning method offers an important framework for forecasting cardiac diseases. An advanced Support Vector Machine (SVM) classifier was used by the program to conduct parameter tuning to improve classification accuracy and performance. The proposed work aims to develop a real-time prediction system for health issues based on big medical data processing on the cloud. In the proposed scalable system, the medical parameters are sent to Apache Spark to extract the attributes from the data and to apply the proposed machine learning algorithm aiming to predict the healthcare risks and send them as alerts and recommendations to the users and the healthcare providers as well. The purpose of this paper

			isevaluate the impact of applying machine learning algorithms using electronic health records. The proposed work aimed to provide an effective recommendation system using streaming medical data, historical data on the user profile, and knowledge database to provide users with the best recommendations and alerts in realtime according to the sensors measurements. The proposed system of prediction could offer high accuracy in comparison with literature work with the predictability of 90.6 for heart disease. The methodology of this research is applying parameterization for parameters on SVM to make the possibility of prediction is higher using the most effective features
Heart Disease Prediction System Using Machine Learning	Ranjit Shrestha1 and Jyotir Moy Chatterjee2	2019	he major killer cause of human death is Heart Disease (HD). Many people die due to this disease. Lots of researchers have been discovering new technologies to prognosticate the disease early before it's too late for helping healthcare as well as people. These processes are still under research phase. Machine Learning (ML) is faster-emerging technology of Artificial

			Intelligence (AI) that contributes various algorithms for HD. Based on the proposed problem, ML provides different classification algorithms to divine the probability of patient having HD. For predicting HD, a lot of research scholars contributes their effort in this work using various techniques and algorithms such as Decision Tree (DT), Naïve Bayes (NB), Support Vector Machine (SVM), KNN (KNearest Neighbor), Neural Network (NN), etc. In order to give some effort on this work, we are going to develop a Web-based Heart Disease Prediction System (HDPS) by applying DT and NB ML algorithms. We are using the UCI repository HD dataset to train a model by comparing DT and NB algorithm for HDPS Web application. The dataset contains 303 instances with 14 attributes that help to train a prediction model that will be deployed into a web application for prediction. The main aim of this project is to build an efficient prediction model and deploy for prediction of disease. An HDP Model is built by using NB algorithm that provides 88.163% accuracy among others.

Heart Disease Diagnosis and Prediction Using Machine Learning and Data Mining Techniques: A Review	1Animesh Hazra, 2Subrata Kumar Mandal, 3Amit Gupta, 4Arkomita Mukherjee, 5Asmita Mukherjee	2010	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