

LITERATURE SURVEY

Team Id:	PNT2022TMID17352
Project Name:	Visualizing and Predicting Heart Disease with an Interactive Dashboard
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PAPER SET 1

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ABSTRACT:

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.

ADVANTAGES:

Bo Jin, Chao Che et al. (2018) proposed a “Predicting the Risk of Heart Failure with EHR Sequential Data Modeling” model designed by applying neural network. This paper used the electronic health record (EHR) data from real-world datasets

related to congestive heart disease to perform the experiment and predict the heart disease before itself. We tend to use one-hot encoding and word vectors to model the diagnosing events and foretold coronary failure events victimization the essential principles of an extended memory network model. By analyzing the results, we tend to reveal the importance of respecting the sequential nature of clinical records.

DRAWBACKS:

In this paper, a literature survey of review delivers the concept of various techniques has been studied for diagnosing the cardiovascular disease.

Use of big data, machine learning along with data mining can provide promising results to bring the most effective accuracy in analyzing the prediction model.

PAPER SET 2

Published in: Md. Touhidul Islam, Sanjida Reza Rafa, et al, “Early Prediction of Heart Disease Using PCA and Hybrid Genetic Algorithm with k-Means”, 2021.

ABSTRACT:

Data Analysis is carried out to discover useful knowledge from the dataset and to drive quick and better decisions. It is also used to increase the efficiency of the work. Exploratory Data analysis is the first phase in Data Analysis. It is a method to understand the data and summarize the main features in the dataset by analyzing the data. It is also used for the visual representation of data. Visualization includes

line plot, subplot, pair plot, violin plot, joint plot, swarm plot, Histograms, Box plot, Scatter plot. In this paper, Exploratory Data Analysis is done using python and implemented in Spyder IDE

ADVANTAGE:

Worldwide research shows that millions of lives lost per year because of heart disease. The healthcare sector produces massive volumes of data on heart disease that are sadly not used to locate secret knowledge for successful decision making. One of the most important aspects at this moment is detecting heart disease at an early stage. Researchers have applied distinct techniques to the UCI Machine Learning heart disease dataset. Many researchers have tried to apply some complex techniques to this dataset, where detailed studies are still missing. In this paper, Principal Component Analysis (PCA) has been used to reduce attributes. Apart from a Hybrid genetic algorithm (HGA) with k-means used for final clustering. We used the Hybrid Genetic Algorithm (HGA) for data clustering to avoid this problem. Our proposed method can predict early heart disease with an accuracy of 94.06%.

DRAWBACKS:

According to many researches that have been conducted through a period of time have found out that heart failure and heart disease has been the cruel cause of death in human beings. What aggravates this situation is that most of these diseases are being diagnosed at later stages at which it is very difficult to control.