A LITERATURE SURVEY OF PREDICTING HEART DISEASE

Title: Visualizing and Predicting Heart Diseases with an Interactive Dash Board

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Introduction:

Heart disease defines a range of conditions that affect human heart. The name "heart disease" is often used commonly with the name "cardiovascular disease". Heart disease is a term that allow to a large number of medical circumstances related to heart. These medical circumstances characterize the irregular health condition that directly affects the heart and all its parts. Heart disease generally allows to some conditions that involve narrowed or blocked blood vessels which can lead to a heart attack, stroke or chest pain. Other heart conditions, such as those that affect your heart's muscle, valves or rhythm, also are considered forms of heart disease .There are various types of cardiovascular disease. The most similar types are heart failure (HF) and Coronary Artery Disease (CAD). The main root cause of heart failure (HF) is occur due to the blockade or narrowing down of coronary arteries. Coronary arteries also supply blood to the heart.

S. NO.	TITLE	METHODOLOGY	ADVANTAGES	DISADVANTAGES
1	Predicting the Risk of Heart Failure With EHR Sequential Data Modeling [1]	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.	Reveal the importance of respecting the sequential nature of clinical records.	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.
2	Computational Intelligence and Communication Technology [2]	This study eliminates the manual task that additionally helps in extracting the information (data) directly from the electronic records.	Generate strong association rules, we have applied frequent pattern growth association mining on patient's dataset.	Depends on dataset's information and valid dataset is required.
3	An Intelligent Learning System based on Random Search Algorithm and Optimized Random Forest Model for Improved Heart Disease Detection[3]	This paper uses random search algorithm (RSA) for factor selection and random forest model for diagnosing the cardiovascular disease.	This methodology is efficient and less complex than conventional random forest model. Comparing to conventional random forest it produces 3.3% higher accuracy.	This model is principally optimized for using grid search algorithmic program.

PROBLEM STATEMENT

Machine Learning is one of the most widely used concepts around the world. It will be essential in the healthcare sectors which will be useful for doctors to fasten the diagnosis. In this article, we will be dealing with the Heart disease dataset and will analyze, predict the result whether the patient has heart disease or normal, i.e. **Heart disease prediction** using IBM cognos cloud analytics tool. This prediction will make it faster and more efficient in healthcare sectors which will be a time-consuming process.

REFERENCES

[1] Bo Jin ,Chao Che, Zhen Liu, Shulong Zhang, Xiaomeng Yin,And Xiaopeng Wei, "Predicting the Risk of Heart Failure With EHR Sequential Data Modeling" ,IEEE Access 2018.

[2] Aakash Chauhan , Aditya Jain , Purushottam Sharma ,Vikas Deep, "Heart Disease Prediction using Evolutionary Rule Learning", "International Conference on "Computational Intelligence and Communication Technology" (CICT 2018).

[3] Ashir Javeed, Shijie Zhou, Liao Yongjian, Iqbal Qasim,Adeeb Noor, Redhwan Nour4, Samad Wali And Abdul Basit , "An Intelligent Learning System based on Random Search Algorithm and Optimized Random Forest Model for Improved Heart Disease Detection" , IEEE Access 2017.