**LITERATURE SURVEY**

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| **SNO** | **TITLE OF THE PAPER** | **NAME OF**  **THE JOURNAL** | **AUTHOR** | **YEAR**  **OF**  **PUBLISHING** | **ACHIEVEMENTS** | **DRAWBACKS** |
| 1. | Visualization and Prediction of Heart Diseases Using Data Science Framework | IEEE | Vaibhav Gupta,Vaibhav Aggarwal,Shagun Gupta,Neeti Sharma | 2021 | 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 has been developed. | This prediction takes long time and this process is a long process . This test accuracy through many methods and they are harder to reach out. |
| 2. | **Heart Disease Prediction using Exploratory Data Analysis** | Elsevier B.V | R.Indrakumar,  T.Poongudi,  Sowmya Ranjan Jena | 2020 | The heart diseases are predicted by considering major factors with four types of chest pain. K-means clustering is one of the simplest and popular unsupervised machine learning algorithms. Here the datasets are clustered and based upon the clusters the happening of chest pain is predicted. The role of exploratory data using tableau provided a visual appealing and accurate clustering experience.. | This research uses K means Clustering . k-means has trouble clustering data where clusters are of varying sizes and density.The numbers of clusters data sets are need to be collected earlier.This affects the accuracy and time is increased to complete the calculation. |
| 3 | Prediction of Heart Disease Using a Combination of Machine Learning and Deep Learning | Hindawi | Rohit Bharti,Aditya Khamparia,**Mohammad Shabaz**,Gaurav Dhiman,Sagar Pande,and Parneet Singh | 2021 | In this paper different machine learning algorithms and deep learning are applied to compare the results and analysis of the UCI Machine Learning Heart Disease dataset. The dataset consists of 14 main attributes used for performing the analysis. Various promising results are achieved and are validated using accuracy and confusion matrix. This study can be combined with some multimedia technology like mobile devices. Using deep learning approach, 94.2% accuracy was obtained. | The dataset of this project consists of some irrelevant features which are handled using Isolation Forest. And we need to normalize the data for more accurate results. The dataset must be clear and must be easy to predict. |
| 4 | Heart Disease Prediction System | Research gate | Kennedy Ngure Ngare | 2019 | In this study, a Heart Disease Prediction System  (HDPS) is developed using Naives Bayes and Decision Tree algorithms for predicting the risk level of  heart disease. The HDPS predicts the likelihood of patients getting heart disease. It enables  significant knowledge. They have employed the multilayer perceptron neural network with backpropagation as the  training algorithm. The obtained results have illustrated that the designed diagnostic system can  effectively predict the risk level of heart diseases.  . | Naive Bayes assumes that all predictors (or features) are independent, rarely happening in real life. This limits the applicability of this algorithm in real-world use cases.So, the calculation is not real in world. |
| 5 | Prediction of Heart Disease using Data Mining Techniques | Indian journal of Science and Technology | S.Kiruthika Devi,  S.KrishnaPriya  Dristipona Kalita | 2016 | The objective of this paper is to build a heart disease prediction model, which implements data mining technique, can help the medical practitioners in detecting the heart disease status based on the patient's clinical data. Data mining classification techniques for good decision making in the field of health care addressed are namely Decision trees, Naive Bayes, Neural Networks and Support Vector Machines. Hybridizing or combining any of these algorithms helps to make decisions quicker and more precise. | In this paper, a single or hybrid combination of data mining algorithms can be used to investigate researches on heart. |
| 6 | Heart disease prediction using strength scores with significant predictors | BMC | Armin Yazdani,  Kasthuri Dewi Varathan,Yin Kia Chiam, Asad Waqar Malik and Wan Azman Wan Ahmad | 2021 | This paper proposes an algorithm that measures the strength of the significant features that contribute to heart disease prediction. The study is aimed at predicting heart disease based on the scores of significant features using Weighted Associative Rule Mining. A set of important feature scores and rules were identified in diagnosing heart disease and cardiologists were consulted to confirm the validity of these rules. The experiments performed on the UCI open dataset, widely used for heart disease research yielded the highest confidence score of 98% in predicting heart disease. | This study managed to provide a significant contribution in computing the strength scores with significant predictors in heart disease prediction. From the evaluation results, we obtained important rules and achieved highest confidence score by utilizing the computed strength scores of significant predictors on Weighted Associative Rule Mining in predicting heart disease. |
| 7 | Heart Disease Prediction Using Various Algorithms of Machine Learning | SSRN | 2021 | Rati Goel | In this paper, they uses Python and machine learning, this paper is analyzed and predicted of the heart disease.. We can predict this disease by using various attributes in the data set. We have collected a data set consists of 13 elements and 383 individual value to analyze the patients performance. The main aim of the paper is to get a better accuracy to detect the heart disease using ML algorithm.. | Along with that, a model regarding ML has played a significant role in creating accuracy and determining results with the aid of training data. The emphasis for discussion is on data analysis. It works with categorical variables along with that; it will break particular categorical columns into dummy columns with 1s and 0s. |