

LITERATURE SURVEY ON VISUALIZING AND PREDICTING HEART DISEASE WITH AN INTERACTIVE DASHBOARD

SNO	TITLE	AUTHOR	YEAR	FINDINGS
1	Heart Disease Prediction Using Machine Learning	Chaimaa Boukhatem; Heba Yahia Youssef; Ali Bou Nassif	2022	The paper demonstrated four classification methods: Multilayer Perceptron (MLP), Support Vector Machine (SVM), Random Forest (RF), and Naïve Bayes (NB), to build the prediction models. Data preprocessing and feature selection steps were done before building the models. The models were evaluated based on the accuracy, precision, recall, and F1-score.
2,	An artificial intelligence model for heart disease detection using machine learning algorithms	Victor ChangVallabhanent Rupa BhavaniAriel Qianwen XuMA Hossain	2022	The VLRAKN achieved the highest accuracy when it is compared with algorithms such as naive Bayes, random forest classification, logistic regression and decision trees. With the observation of this approach, Random forest classification gives the parameters for the algorithms are based on the best accuracy score of the data reading.
3	Effective Heart Disease Prediction Using Hybrid Machine Learning Techniques	Senthilkumar Mohan; Chandrasegar Thirumalai; Gautam Srivastava	2019	The prediction model is introduced with different combinations of features and several known classification techniques. We produce an enhanced 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).
4	Heart Disease Prediction using Machine Learning Technique	Najmu Nissa, Sanjay Jamwal and Shahid Mohammad	2021	This research work aims at identifying the best classification algorithm in terms of the highest accuracy for the prediction of the aforementioned disease. This work will be justified by analyzing comparatively the

				support vector machine, decision tree and random forest algorithm for prediction of heart disease and the algorithm with the highest accuracy would be considered as the optimal one.
5	Heart disease prediction using data mining	U. Sairam, Santhosh Voruganti	2022	Data mining algorithms like Decision trees (J48), Bayesian classifiers, Multilayer perceptron, Simple logistic and Ensemble techniques are utilized to determine the heart ailments. The classification results will be envisioned by various representation procedures like 2D diagrams, pie graphs, and different techniques.
6	Heart Attack Prediction and Visualization of Contributing Factors Using Machine Learning	Megha Banerjee1, Reetodeep Hazra1, Suvranil Saha1, Megha Bhushan1, Subhankar Bhattacharjee2	2021	In this paper, they performed multiple data visualization to analyze what factor influences or contribute the most in the cardiac arrest. Lastly we compared four different highly reputed algorithms in the field of health analytics- Decision Tree, Random Forest, Gaussian Naïve Bayes, and Linear Regression. The Linear Regression algorithm showed the highest level of accuracy and precision (88% and 87% respectively)
7	Heart Disease Prediction using Hybrid machine Learning Model	M. Kavitha; G. Gnaneswar; R. Dinesh; Y. Rohith Sai; R. Sai Suraj	2021	Machine learning techniques Random Forest and Decision Tree are applied. In implementation, 3 machine learning algorithms are used, they are 1. Random Forest, 2. Decision Tree and 3. Hybrid model (Hybrid of random forest and decision tree). Experimental results show an accuracy level of 88.7% through the heart disease prediction model with the hybrid model.

8	Heart Disease Prediction using Exploratory Data Analysis	R.Indrakumari, T.Poongodi, Soumya Ranjan Jena	2020	The risk factors that causes heart disease is considered and predicted using K-means algorithm and the analysis is carried out using a publicly available data for heart disease. To predict the heart disease, K-means clustering algorithm is used along with data analytics and visualization tool.
9	Predicting Heart Diseases In Logistic Regression Of Machine Learning Algorithms	A. S. Thanuja Nishadi	2019	The aim of this study is to identify the most significant predictors of heart diseases and predicting the overall risks by using logistic regression. Thus, binary logistic model which is one of the classification algorithms in machine learning is used in this study to identify the predictors
10	Heart disease prediction using supervised machine learning algorithms: Performance analysis and comparison	Md Mamun Ali, Bikash Kumar Paul, Kawsar Ahmed, Francis M. Bui, Julian M.W. Quinn, Mohammad Ali Moni	2021	This study found that using a heart disease dataset collected from Kaggle three-classification based on k-nearest neighbor (KNN), decision tree (DT) and <u>random forests</u> (RF) algorithms the RF method achieved 92% accuracy along with 90% sensitivity and specificity.