

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 9, May 2023

## Predict Cardio Disease using Supervised ML Algorithm

K Madhu Babu, Pratham Kabra, M. Srujan, Nithin Sai

Department of ECM Sreenidhi Institute of Science and Technology, Hyderabad, India

Abstract: Cardiovascular disease is the leading cause of death worldwide, with deaths due to heart disease becoming a significant issue, claiming approximately one life per minute. Early detection of heart disease is a major challenge, and data science is increasingly being used to process large amounts of healthcare data. Automating the prediction process is critical to minimize the risks associated with heart disease and alert patients in advance. In this study, we propose a heart disease prediction system that classifies patients' risk levels using Naive Bayes, Decision Tree, Logistic Regression, and Random Forest algorithms. By analyzing patient data, our system predicts the likelihood of heart disease and provides effective prescription details based on the risk level. We have implemented a robust Machine Learning algorithm - Random Forest - to design an effective heart attack prediction system. Our system aims to identify different risk levels of heart attack, including normal, low, or high, at early stages, thus preventing the loss of lives.

Keywords: Random Forest, Naïve Bayes, Classification and Regression, Cleveland Dataset

## REFERENCES

- [1]. Bo Jin, Chao Chi, Zen Liu, Shulong Zhang, Xiaomeng Yin, Xiaopeng Wi, "Predicting The Risk of Heart Failure With EHR Sequential Data Modeling", IEEE Access,(6:9256-9261), January, 2018.
- [2]. Edward Choe, Andy Schuetz, Walter F Stewart, Jimeng Sun,"Using recurrent neural network models for early detection of heart failure onset", Journal of the American Medical Informatics Association(24(2):361-370),March,2017.
- [3]. AKINROTIMI Akinyemi, MABAYOJE Modinat," A Machine Learning Approach to Diagnosing Heart Diseases", Journal of Computer Science and Control Systems(14(1):5-11),may,2021
- [4]. Raunak Verma, Shashank Tandon, Mr. Vinayak," Heart Disease Prediction using Machine Learning", International Journal for Research in Applied Science & Engineering Technology(10(5):1872-1876), May,2022.
- [5]. Tibshirani, R. (1996). Regression shrinkage and selection via the lasso. Journal of the Royal Statistical Society: Series B (Methodological), 58(1), 267-288.

