

Ideation Phase – Literature survey

Title	Visualising and predicting heart disease with an interactive dashboard
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Literature survey:

Bo Jin, Chao C 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 used one-hot encryption 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 [1].

Aakash Chauhan et al. (2018) presented “Heart Disease Prediction using Evolutionary Rule Learning”. This study eliminates the manual task that additionally helps in extracting the information (data) directly from the electronic records. To generate strong association rules, we have applied frequent pattern growth association mining on patient's dataset. This will facilitate (help) in decreasing the amount of services and shown that overwhelming majority of the rules helps within the best prediction of coronary sickness [2].

Ashir Javeed, Shijie Zhou et al. (2017) designed “An Intelligent Learning System based on Random Search Algorithm and Optimized RandomForest Model for Improved Heart Disease Detection”. This paper uses random search algorithm (RSA) for factor selection and random forest diagnosing the cardiovascular disease. The model is principally optimized for using grid search algorithmic program.

“Effective Heart Disease Prediction Using Hybrid Machine Learning Techniques” proposed by Senthilkumar Mohan, Chandrasegar Thirumalai et al. (2019) was efficient technique using hybrid machine learning methodology. The hybrid approach is combination of random forest and linear method. The dataset and subsets of attributes were collected for prediction. The subset of some attributes were chosen from the pre-processed knowledge(data) set of cardiovascular disease. After pre-processing, the hybrid techniques were applied and diagnosis the cardiovascular disease [4].

K.Prasanna Lakshmi, Dr. C.R.K.Reddy (2015) designed “Fast Rule-Based Heart Disease Prediction using Associative Classification Mining”. In the proposed Stream Associative Classification Heart Disease Prediction (SACHDP), we used associative classification mining over landmark window of data streams. This paper contains two phases: one is generating rules from associative classification mining and next one is pruning the rules using chi-square testing and arranging the rules in an order to form a classifier. Using these phase to predict the heart disease easily [5].

M.Satish, et al. (2015) used different Data Mining techniques like Rule based, Decision Tree, Navie Bayes, and Artificial Neural Network. An efficient approach called pruning classification association rule (PCAR) was used to generate association rules from cardiovascular disease warehouse for prediction of Heart Disease. Heart attack data warehouse was used for pre-processing for mining. All the above discussed data mining technique were described [6].

Reference:

- [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.
- [4] Senthilkumar Mohan, Chandrasegar Thirumalai, and Gautam Srivastava, “Effective Heart Disease Prediction Using Hybrid Machine Learning Techniques”, IEEE Access 2019.
- [5] K.Prasanna Lakshmi, Dr. C.R.K.Reddy, “Fast Rule-Based Heart Disease Prediction using Associative Classification Mining”, IEEE International Conference on Computer, Communication and Control (IC4-2015).
- [6] M.Satish, D Sridhar, “Prediction of Heart Disease in Data Mining Technique”, International Journal of Computer Trends & Technology (IJCTT), 2015. [7] Lokanath Sarangi, Mihir Narayan Mohanty, S