Prediction of Heart Attacks Using Public Repository Data

Mettupally Aswini Reddy*1  Dr.K Rameswaraiiah*2  Rajender Nagunuri*3
*1M.Tech in CSE  *2Professor & Head of CSE Department  *3Associate Professor in CSE Department
*123Nalla Narasimha Reddy Education Society’s Group of Institutions

Abstract—This paper basically focused on predication of heart attacks by taking some parameters. By analyzing the dataset which is collected from the public repositories we predicted the heart attack.

Keywords—Heart Attack Prediction, ECG, Heart Rate.

I. INTRODUCTION

In healthcare management, a large volume of multi-structured patient data is generated from the clinical reports, doctor’s notes and wearable body sensors. The analysis of healthcare parameters and prediction of the subsequent future health conditions are still in informative stage. A cloud enabled big data analytic platform is the best way to analyze the structured and unstructured data generated from healthcare management systems. In this paper, a probabilistic data collection mechanism is designed and correlation analysis of those collected data is performed.

Physiological data of patients are the primary and vital entities in healthcare big data analytic. Hence, valid raw data must be collected with an efficient and effective manner in a medical environment. In advanced healthcare systems, the patient data are collected through wearable devices equipped with different types of sensors. Recently, the advancement in mobile devices such as multi-sensor equipped smart phones are also used as the data collection devices. Hence, colossal amounts of patient data are generated within a hospital network, which needs to be stored and analyzed efficiently. Therefore, a cloud computing enabled distributed storage and processing environment is essential to store and process the healthcare data, which can be accessed anywhere and anytime.

II. LITERATURE SURVEY

How to analyze data to derive meaning information is highly essential for studying the mammoth health related raw data and to predict the future health condition. A brief survey is performed on advantages and disadvantages of applications and technical requirements for in-hospital and BAN patients monitoring. Authors have designed the data acquisition mechanism by using sensors, log files and web crawler in various applications. However, the frequency of the patient visit is not considered during data collection.

New big data architecture with methodology for healthcare is proposed and authors propose a task-level adaptive and scalable MapReduce framework, which can estimate the future arrival rate of workload on the map and reduce phases. In another prospective, MapReduce framework is designed to reduce the re-computation for incremental iterative computations. An online community-based health services is proposed, where the health data are collected and mined through some questionnaires and their respective answers. A scalable and distributable method is proposed to find the similarity among patients by modifying the MapReduce framework. This method can support the storage and information retrieval over the time stamp. However, the visiting frequency, health parameters and hidden symptoms of patients are very important but are not taken into consideration for analyzing and processing the data in this work.

Many disease prediction models have been proposed in the recent past. In [23], different types of artificial neural network (ANN) techniques are discussed for disease prediction. However, ANN takes longer time for training the model due to diversified weights associated with each layer. Even, any small change in the input data set affects the model, which gives unstable output.

III. PROPOSED SYSTEM

In this project I am going to use big data for predicting the future health condition. My proposed system contains 3 phases. Those are

Phase 1: Patient data is collected from the public repositories
Phase 2: Data will be stored in permanently for future analysis

Phase 3: The data is analyzed and future health condition is predicted.

IV. EXPERIMENTAL RESULTS

![Fig1 Heart Attack Prediction Screen1](image1)

![Fig2 Heart Attack Prediction Screen2](image2)

V. CONCLUSION

This paper is focused on Heart Disease Prediction using big data. In this project I did not considered other diseases. But this system can be extended to predict other critical diseases also. If we get datasets we can apply on all types of diseases. The accuracy of the prediction depends upon the size of the dataset data. If the data is very huge then we will get more accuracy in prediction.

REFERENCES


