LITERATURE SURVEY

Identification and Prediction of Chronic Diseases Using Machine learning Approach

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humans face various diseases due to the current environmental condition and their living habits. 'e identification and prediction of such diseases at their earlier stages are much important, so as to prevent the extremity of it. It is difficult for doctors to manually identify the diseases accurately most of the time. The goal is to identify and predict the patients with more common chronic illnesses. It could be achieved by using a cutting-edge machine learning technique to ensure that this categorization reliably identifies persons with chronic diseases. Data mining plays a critical role in disease prediction. This proposed system offers a broad disease prognosis based on patient's symptoms by using the machine learning algorithms such as convolutional neural network (CNN) for automatic feature extraction and disease prediction and K-nearest neighbor (KNN) for distance calculation to find the exact match in the data set and the final disease prediction outcome. A collection of disease symptoms has been performed for the preparation of the data set along with the person's living habits, and details related to doctor consultations are taken into account in this general disease prediction. Finally, a comparative study of the proposed system with various algorithms such as Na¨ıve Bayes, decision tree, and logistic regression has been demonstrated .

Applications of Machine Learning Predictive Models in the Chronic Disease Diagnosis

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.Chronic diseases (CDs) are responsible for a major portion of global health costs. Patients who suffer from these diseases need lifelong treatment. Nowadays, predictive models are frequently applied in the diagnosis and forecasting of these diseases. The state-of-the-art approaches that encompass ML models in the primary diagnosis of CD is reviewed. 22 studies were selected to present all modeling methods in a precise way that explains CD diagnosis and usage models of individual pathologies with associated strengths and limitations. This outcomes suggest that there are no standard methods to determine the best approach in real-time clinical practice since each method has its advantages and disadvantages. Among the methods considered, support vector machines (SVM), logistic

regression (LR), clustering were the most commonly used. These models are highly applicable in classification, and diagnosis of CD and are expected to become more important in medical practice in the near future.

A method to predict diagnostic codes of chronic disease using Machine learning techniques

Dr. Deepa Gupta, Khare, S., and Aggarwal, A., "A method to predict diagnostic codes for chronic diseases using machine learning techniques", in 2016 International Conference on Computing, Communication and Automation (ICCCA), 2016.

Healthcare in simplest form is all about diagnosis and prevention of disease or treatment of any injury by a medical practitioner. It plays an important role in providing quality life for the society. The concern is how to provide better service with less expensive therapeutically equivalent alternatives. Machine Learning techniques (ML) help in achieving this goal. Healthcare has various categories of data like clinical data, claims data, drugs data and hospital data. The focusshould be on clinical and claims data for studying 11 chronic diseases such as kidney disease, osteoporosis, arthritis etc. using the claims data. The correlation between the chronic diseases and the corresponding diagnostic tests is analyzed, by using ML techniques. An effective conclusion on various diagnostics for each chronic disease is made, keeping in mind the clinical relevance.

Chronicle Disease Diagnosis using Machine Learning

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As the chronicle disease is long lasting diseases, it takes long period to diagnosis. The chronicle disease is a threatening disease in all over the world, its cost more to diagnosis, as some of the chronicle diseases are unable to diagnose, the patient has to suffer throughout his lifetime. This kind disease data are available hugely in medical field, to make easier for healthcare system the data mining approaches are applied. Five chronicle dataset are taken and the machine learning approaches are applied, the machine learning algorithms such as decision tree, random forest, and the support vector machine are applied and the predicted whether the patient is suffering from disease. The chronicle disease such as heart disease, liver disease, diabetes, disease dataset are retrieved from the open source, and applied the data mining process to all the dataset. As we get the result by comparing all algorithms performance on all dataset the random forest predicts with high accuracy.