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Disease Prevalence Estimation

Lokesh Singhvi, Satyam Pathak, Harvi Patel, Bhoumik Rajput, Prof. Revati Raspayle
Department of Computer Science and Engineering
MIT ADT University Pune, India

Abstract: *Nowadays, disease prevalence estimation is a significant concern, with heart disease being one of the most common ailments. Unfortunately, the treatment of such diseases can be costly, often beyond the means of the average individual. However, we can mitigate this issue to some extent by accurately estimating disease prevalence before it reaches dangerous levels, using techniques such as Machine Learning and Data Mining.*

In the healthcare biomedical field, there's a vast amount of health data available, ranging from text to images. However, much of this data remains unexplored and unmined. Introducing a Disease Prevalence Estimation System could address this gap. Such a system would not only help in reducing costs but also enhance the quality of treatment for patients.

Machine Learning and Data Mining techniques can be employed to construct this Disease Prevalence Estimation System. By analyzing patient profiles including factors like blood pressure, age, sex, cholesterol, and blood sugar levels, the system can predict the likelihood of individuals developing various health issues.

Furthermore, the system can identify complex problems and make intelligent medical decisions, thereby improving overall healthcare outcomes. Performance evaluation can be done using metrics such as the confusion matrix, allowing for the calculation of accuracy, precision, and recall.

In conclusion, a Disease Prevalence Estimation System has the potential to offer high performance and better accuracy, thus significantly contributing to the early detection and management of various diseases..

Keywords: Disease Prevalence Estimation System

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