Patient Health Monitoring and Analysis

Patient health monitoring is essential for effective disease treatment and overall health management. It enables early detection of diseases, allowing medical practitioners to diagnose issues accurately and provide appropriate treatment. Traditionally, vital signs were manually monitored by nurses and caretakers, but this method has inherent shortcomings due to the potential for human error, such as missed recordings or inaccuracies.

To address these issues and enhance the accuracy and efficiency of recording and storing vital signs, we developed an application designed to automate this process.

The application includes a secure login and signup page for user safety. The Home page provides a brief explanation of how to use the site, ensuring ease of use.

The core feature of the application is the vitals recording page, where nurses and caretakers can enter patient data into the database, linked to the patient's name and ID. To minimize errors, the application only accepts vitals within a certain range.

Once vitals are recorded, a neural network analyses the data and provides an inference regarding the likelihood of the patient having any of the five common diseases namely, Asthma, Fever, Cough, Diarrhoea and Pneumonia. This preliminary analysis helps medical staff decide on necessary confirmatory tests, streamlining the diagnostic process.

Additionally, doctors can view historical vital data for each patient, including detailed trend analysis and anomaly detection, with data visualization in form of graphs. This comprehensive approach ensures accurate monitoring, timely intervention, and improved patient outcomes. The application also includes other features as maintaining a record for the medications and diagnosis being given to each patient and what disease are confirmed to be affecting the patient.