Human Disease Detection Using Ensemble Machine Learning and Deep Learning

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***Abstract: Nowadays, India encounters huge varieties of disease and detections of the diseases plays an vital role in medical field. Early stage detection of diseases is very essential and necessary because of the unhealthy food habits and lifestyle. In this study for predicting disease and to classify the disease based on accuracy which determines the person is healthy or not. To increase the efficiency of predicting the types of disease that the people have and to find the variety of disease which revives in the surroundings, Custom Ensemble Learning using Pipeline, K-Nearest Neighbor (KNN), Logistic Regression, Convolutional Neural Networks (CNN) and Principal Component Analysis is used. The data of the patients were pre-processed., compartmented and analyzed to predict which patient is needs treatment and given priority and which hits the surroundings very most. Ensemble Machine Learning’s model popularity in medicine is due to a variety of factors and the wide variety of classifiers used are K Nearest Neighbor, Nearest Mean Classifier, Random Forest, Logistic Regression. To de-escalate the manual processes in medical industry, automating different processes has become very significant. Major Medical records and healthcare advancement have given an opportunity to find out which patients require more significance. Machine Learning were used to pre-process the dataset in order to validate the model. To improve the performance of the model, both Machine learning and Deep Learning is used to predict the accuracy of the disease of the patients, the results are more reliable. The objective of the project is to create a system model to classify patients records whether it is malignant or benign and find out which disease affects the patients health and to reduce the cost of the entire processes.***

***Keywords: Machine Learning, K Nearest Neighbors, Nearest Mean Classifier, Mean Feature Voting Classifier, KDtree KNN, Random Forest***

1. **INTRODUCTION**