STROKE PRICE PREDICTION PROJECT

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Abstract:

The brain is the human body's primary upper organ. Stroke is a medical disorder in which the blood arteries in the brain are ruptured, causing damage to the brain. When the supply of blood and other nutrients to the brain is interrupted, symptoms might develop. Stroke is considered as medical urgent situation and can cause long-term neurological damage, complications and often death. The World Health Organization (WHO) claims that stroke is the leading cause of death and disability worldwide. Early detection of the numerous stroke warning symptoms can lessen the stroke's severity. The main objective of this study is to forecast the possibility of a brain stroke occurring at an early stage using machine learning techniques. To gauge the effectiveness of the algorithm, a reliable dataset for stroke prediction was taken from the Kaggle website, then Performed pre-processing such as handling missing values, outlier removal, normalizing, label encoding and partitioning. Several classification models, including Random Forest, Decision Tree, Logistic Regression, K Neighbors, SVM were successfully used in this study for classification tasks. The Linear Regression and SVM classifier got the same classification accuracy which is 94.7%, and it was the highest (among the machine learning classifiers).

Stroke is a potentially fatal medical condition that needs to be treated right away to prevent future consequences. The creation of a machine learning (ML) could help with stroke early diagnosis and subsequent reduction of its severe consequences. This project examines how well different machine learning (ML) predict stroke based on various biological factors. With a classification accuracy of 94.7%, Logistic Regression classification exceeds the other investigated techniques. According to the project, the Logistic regression method performs better than other methods when forecasting brain strokes using cross-validation measures.