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Description

Thyroid Disease Detection Using a Hybrid Machine Learning Approach

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Short Title:

Hybrid ML Approach for Thyroid Disease Detection

Keywords:

Thyroid disease, machine learning, hybrid approach, Random Forest, Support Vector Machine, Neural Networks

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#### 1.Abstract:

This paper introduces a hybrid machine learning approach for the detection of thyroid diseases, specifically focusing on Hyperthyroidism and Hypothyroidism. By integrating Decision Tree and Random Forest algorithms, the proposed model aims to enhance the accuracy and efficiency of thyroid disease prediction. The study demonstrates promising results with approximately 95% accuracy on the trained dataset. Additionally, efforts are made to streamline the diagnostic process by reducing the number of disease detection parameters. The findings suggest the potential of the hybrid machine learning approach in improving thyroid disease detection, thereby benefiting healthcare systems.

Keywords: machine learning, thyroid disease, hybrid model, decision tree, random forest



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