Review of: "Application of Ensemble Learning in CXR Classification for Improving COVID-19 Diagnosis"

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Potential competing interests: No potential competing interests to declare.

The authors employed an ensemble of Support Vector Machine (SVM), Decision Tree (DT), Naive Bayes (NB), K-Nearest Neighbor (KNN), and Tree Bagger (TB) to predict COVID-19 from chest X-ray (CXR) images using Histogram of Oriented Gradients (HOG) features. They compared the performance using different split ratios of the dataset. The paper can be accepted if the following concerns are addressed:

Research Gap: Clarify the motivation for focusing on COVID-19 as the World Health Organization (WHO) has declared the end of the pandemic. Explain why HOG was chosen for feature extraction and machine learning (ML) for classification instead of Convolutional Neural Networks (CNNs), which can function as feature extractors and classifiers.

Significance of Contributions: The contributions listed are not significant. Elaborate on the novel aspects of your work and how it advances the current state of research in this field.

Ensemble Model Combination: Provide a detailed explanation of how the machine learning algorithms were combined in the ensemble model. Describe the method used for ensemble integration (e.g., majority voting, stacking, etc.) and the rationale behind it.

Split Ratio Comparison and Conclusion: Discuss the results obtained from different split ratios in detail. Compare these results thoroughly and draw a clear conclusion based on the comparative analysis.