

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

Mahboobeh Jafari¹

¹ University of Southern Queensland

Potential competing interests: No potential competing interests to declare.

This paper is about Innovative Imaging: Application of Ensemble Learning in CXR Classification for Enhancing COVID-19 Diagnosis. This paper has no novelty, because there are many papers in this field that researchers used advanced deep learning models like attention models, transformers, graphs, etc. for diagnosis of Covid-19 from medical imaging. Here are my comments on the given text:

1. The introduction section is not well organized and needs to be rewritten. The authors refer to imaging modalities used for COVID-19 diagnosis. In this section, the advantages and disadvantages of each modality should be mentioned.
2. The introduction section is poorly organized and needs to be rewritten. The authors should mention important artificial intelligence methods in this section, including their advantages and disadvantages.
3. In the Related Work section, it would be helpful to have a tabular summary of the reviewed papers from 2021-2024. Some articles can be presented in text format, while the remaining papers can be summarized in a table.
4. Section 3 should be rewritten. The authors did not use any references to support the explanations in each subsection.
5. Please explain more about the dataset section (including the number of each class, age,...) and also add more figures for the proposed datasets (for each class).
6. Please provide more experimental results for your proposed model, including additional figures for loss curves, learning curves, etc.
7. Summarize the "Performance Metrics" in a table for better readability. Also, the authors should present mean and STD for all statistical metrics including acc, prec, spec, sens, etc. in tables of results.
8. Please provide more details for your deep learning model and also add a figure for this.
9. The results section is very weak. The authors should present more results.
10. Please provide more experimental results for your proposed model.
11. Please add a section and discuss "the limitations of the study."
12. Rewrite the conclusion section by summarizing your method, findings, and comparing them with more than 20 papers

accepted in 2021-2024. Include a table for better comparison.

13. While English language usage is generally acceptable, there are some errors that need to be corrected.