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 manuscript titled "Application of Ensemble Learning in CXR Classification for Enhancing COVID-19 Diagnosis" employs an ensemble learning approach to classify chest X-ray (CXR) images, achieving high accuracy rates for COVID-19 detection. I accept this paper subject to major revisions as follows:

1. **Abstract:**
   - Include more details in the abstract about the rationale for the topic.
   - Detail the specific methodology used.
   - Provide a comparison with other state-of-the-art methods.
2. **Grammatical and Logical Improvements:**
   - Conduct a thorough proofreading for grammatical and logical issues.
   - Consider utilizing professional editing services to enhance clarity and quality.
3. **Introduction Section:**
   - Clearly justify the research.
   - Explicitly state the key contributions in a structured manner, such as bullet points or a dedicated subsection.
4. **Literature Review:**
   - Adopt a more scientific approach in the literature review.
   - Establish what is known through the review.
   - Analyze existing research and identify specific research gaps.
   - Include relevant articles like:
     - DOI: 10.1109/ICTC58733.2023.10392830
     - DOI: 10.1109/ACCESS.2023.3330919
     - DOI: 10.3390/math11194189
     - DOI: 10.3390/diagnostics13162650
5. **Challenges Addressed:**

- Ensure the manuscript explicitly addresses the challenges mentioned in the related work section.

6. **Recent Literature:**
   - Incorporate more recent literature from 2023-2024 to enhance relevance.
7. **Computational Complexity:**
   - Discuss the computational complexity of the proposed ensemble learning algorithm.
   - Analyze its computational demands and efficiency.
8. **Data Split Information:**
   - Clearly state the training, testing, and validation split of the dataset.
9. **Robustness to MRI Noise:**
   - Evaluate the robustness of the proposed algorithm to various types of noise in CXR images.
10. **Motivation:**
    - Clarify the motivation behind the proposed solution.
    - Specify the importance and potential impact on clinical practice and COVID-19 diagnosis.
11. **Limitations and Future Work:**
    - Discuss the limitations of the proposed method.
    - Provide possible solutions or directions for future research.
12. **Conclusion Section:**
    - Redraw the conclusion to reflect comparisons with other methods.
    - Summarize findings and highlight how your approach outperforms or complements existing techniques.