

# **A novel artificial intelligence-based predictive 1 analytics technique to detect skin cancer (#81775) –**

Kiran Peddireddy \_Peer Review notes:

The paper presents a **novel artificial intelligence-based predictive analytics technique to detect skin cancer**.

As an knowledge engineer of Artificial intelligence and computer vision, I have carefully reviewed the titled "A Novel Artificial Intelligence-Based Predictive Analytics Technique to Detect Skin Cancer".

Overall, the paper presents a well-designed and potentially impactful study on the development of an AI-based technique for detecting skin cancer.

- The authors need to provide more information about the dataset used to train and test the algorithm. The paper should include details on the dataset's source, size, and characteristics, including the number of images used and the types of skin cancer included in the dataset. This information is crucial for evaluating the algorithm's accuracy, which is claimed to be 99.96% in ACCURACY MEASUREMENT.
- The authors should include a Receiver Operating Characteristics (ROC) plot as a metric to measure the model's performance. Additionally, comparing the algorithm's performance with other state-of-the-art methods for skin cancer detection will help assess its efficacy.
- The authors need to provide more information about the algorithm's performance, including its sensitivity and specificity for each type of skin cancer. Comparing the algorithm's performance against existing methods will help establish its efficacy.

## **Strengths:**

- The paper provides a clear and concise research question and a thorough literature review of existing methods for detecting skin cancer.
- The methodology is well-designed, including the collection of high-quality image datasets and the use of multiple AI models for classification.
- The results show promising performance metrics for the AI models, suggesting that the proposed technique has the potential to improve skin cancer detection accuracy.

## **Areas for Improvement:**

- The paper does not discuss potential biases in the dataset used for training and testing, such as biases in patient demographics, image quality, or diagnosis accuracy. Addressing these biases would be important to ensure the proposed technique is effective across diverse populations.
- The authors should provide more information on the limitations and future work of the algorithm. The paper only briefly mentions the algorithm's limitations, and future work should focus on addressing these limitations.

Overall, the paper has the potential to make a valuable contribution to the field of skin cancer detection. However, the authors need fully evaluate the algorithm's performance and limitations. The suggested changes will help make the paper stronger and more impactful.