## Qeios

### Peer Review

# Review of: "ColonNet: A Hybrid of DenseNet121 and U-Net Model for Detection and Segmentation of GI Bleeding"

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The overall work is great, with the model being amidst the top 75 in the Auto-WCBleedGen Challenge Version V2, which is an impeccable achievement. However, there are some comments from my side that can be looked upon to enhance the technical strength of the proposed work and the manuscript.

- The Introduction section is very short. It would be great to compare the WCE with that of other diagnostic techniques (like KUB x-ray, ultrasound, and CT) for the task of GI bleeding identification. Comparison can be made in terms of time, cost, situation, and other preferable factors.
- 2. The literature survey section is missing. It would be better to briefly describe and highlight the recent research works in the area of GI bleeding identification using artificial intelligence techniques like <u>https://doi.org/10.1177/09544119221149233</u>, <u>https://doi.org/10.1063/5.0208691</u>.
- 3. Figures 1 and 2 can be replaced with better diagrams. The current diagrams represent the architecture of the proposed algorithm; however, they are not readable and won't be understandable by the readers. Visually appealing diagrams could better comprehend the architecture. You can refer to <a href="https://doi.org/10.1177/09544119221149233">https://doi.org/10.1177/09544119221149233</a>.
- 4. A graphical abstract would be recommended. A single diagram that would explain the proposed work would be appreciable.
- 5. Table 1 depicts the performance of the proposed framework on both the test datasets, which is good. It would be great if additional plots are added, maybe like an AUC plot, PR curve, and confusion matrix for the classification part. This would add more technical clarity.

- 6. The CAM Explainable AI technique has been used in this work, which is great. However, the need and significance of the technique haven't been explained (what does the CAM plot explain).
- 7. The manuscript shows only 2 sample predictions; it would be recommended to showcase other predictions, especially from test dataset 1, where the model's performance is less.

### Declarations

Potential competing interests: No potential competing interests to declare.