

Review Form 1.7

Journal Name:	Asian Journal of Research in Computer Science
Manuscript Number:	Ms_AJRCOS_97252
Title of the Manuscript:	Classification and Segmentation of Brain Tumor Using EfficientNetB7 and UNet
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalajrcos.com/index.php/AJRCOS/editorial-policy>)

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> 1. The paper explores an interesting avenue of research by proposing the use of U-Net in combination with the EfficientNet-B7 model to develop a framework for predicting the segmentation of brain lesions. This framework facilitates the precise identification of the location of the lesions and distinguishes between glioma, meningioma, pituitary tumors, and cases with no tumors. 2. Yes, the title is suitable. 3. The abstract is too vague. The author should add a brief description of the works presented in the article. 4. The structure and subsections of the paper are not entirely appropriate. The sections on Convolutional Neural Network (CNN), Transfer Learning EfficientNet, and UNet Architecture should be subsections under "Literature Review". Additionally, the "Results" section should be renamed as "Results and Discussion". 5. Yes, it is. 6. They are recent enough but it would be preferable to add another reference from 2022. I should note that this work is very similar to: Atiyah, Assalah Zaki, and Khawla Hussein Ali. "Segmentation of human brain gliomas tumour images using u-net architecture with transfer learning." Diyala Journal of Engineering Sciences (2022): 17-29. Atiyah worked on Glioma, whereas this paper focuses on Glioma, glioma, meningioma, pituitary. The author may wish to review Atiyah's work and consider whether it could provide some relevant information to enhance the current paper. 7. In the introduction, the author should provide a more detailed explanation of the scope of the work presented in this paper, and should also provide an overview of the different sections that the paper will cover. 8. CNNs are widely known in the literature, so there is no need to delve too deeply into explaining them. However, the author should provide more information about EfficientNet, particularly EfficientNet-B7, and U-Net. 9. The author sometimes uses UNet instead of U-Net. 10. The author uses the term pixel size instead of pixel value. 11. There is a sentence in section "Transfer Learning EfficientNet" that implies that EfficientNet is a type of transfer learning, which is false. 12. The author should add Add the hardware specs for Google Colaboratory he used 13. Add more Results of the Brain Segmentation. 14. Add Comparison of the proposed model with previous works. 15. 	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> 1. Is language/English quality of the article suitable for scholarly communications? 	<p>No, the English used is confusing and difficult to understand, which can lead to misinterpretation of the methods used. As a result, it is challenging to see the value of the work presented in the article. It appears as though the article was translated from another language using Google Translate. (Table 1 has non-English words).</p>	
<p>Optional/General comments</p>	<p>The article would benefit from the use of visual aids or demonstratives, such as charts, graphs, or images, in these sections: Model architecture,</p> <ul style="list-style-type: none"> • Transfer learning EfficientNet, • U-Net architecture. 	

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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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