Reviewer Comments

Journal: PeerJ Computer Science

Manuscript Title: Writer verification of partially damaged handwritten Arabic documents

based on individual alphabets
Manuscript ID: 67980v1
Reviewer Number: 1

Submission Date: Wednesday, December 8, 2021

The manuscript presented "a verification of partially damaged handwritten Arabic documents approach". However, the <u>major and critical weak points</u> are that:

- (1) Their proposed work discussion is weak distributed to be described or analyzed.
- (2) The novelty is not guaranteed.
- (3) Their work is not compared with state-of-the-art approaches nor related studies.
- (4) Their experiments leak from the descriptive and statistical analysis.

The rest of my review presents other weak points, comments, and opinions in detail.

Overall Comments:

- (1) [ABSTRACT] The abstract should reflect the contributions of the manuscript. I suggest rewriting it.
- (2) [INTRODUCTION] The authors should provide a clear problem definition and contributions in the introduction section.
- (3) [RELATED WORK] Where are the related studies? They should be declared in a separate section.
- (4) [RELATED WORK] A table of comparisons should be added at the end of the related studies section to praise the pros. and cons. of them. The year column should be added and they should be ordered by it.
- (5) [EQUATIONS] The authors should follow the journal authors' guidance in writing the equations, symbols, and variables. Please, refer to the authors guidelines on the journal official website.
- (6) [EQUATIONS] Where are the equations of the used metrics?
- (7) [DATASETS] Samples from the used dataset should be added and annotated.
- (8) [METHODOLOGY] The suggested approach is not clearly discussed. More scientific details should be added.
- (9) [METHODOLOGY] What are the used equations in the suggested approach? In other words, how the suggested approach is derived?
- (10) [METHODOLOGY] Where is the overall pseudocode? Flowchart? of the suggested approach?
- (11) [EXPERIMENTS] The working environment (i.e., software and hardware) should be declared and added to a table.
- (12) [EXPERIMENTS] The experimental configurations (i.e., settings) should be declared and added to a table.
- (13) Why did not the authors use transfer learning? More experiments should be conducted using it.
- (14) Why the authors added Figure 8?

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- (15) In Table 1: Why the authors selected that model? What is the used criteria?
- (16) [EXPERIMENTS] What are the criteria for selecting the experimental configurations?
- (17) [EXPERIMENTS] More experiments should be conducted using different configurations.
- (18) **[EXPERIMENTS]** Where is the tabular representation of the reported results?
- (19) [EXPERIMENTS] The figures in the experiments section should be gridded. For example, Figure 8.
- (20) [EXPERIMENTS] Why did not the authors compare their approach with others in a table?
- (21) [EXPERIMENTS] Why did not the authors compare their approach with another approach to compare the suggested approach efficiency and applicability?
- (22) [EXPERIMENTS] Can the authors draw the area under the curve (AUC)?
- (23) [EXPERIMENTS] Why did not the authors calculate other performance metrics such as specificity and f1-score?
- (24) [EXPERIMENTS] Where is the detailed and statistical discussion of the reported results?
- (25) [EXPERIMENTS] More experiments should be conducted using a different dataset to prove the generalization.
- (26) [ABBREVIATIONS] The authors should add a table of abbreviations in the revised manuscript.
- (27) [SYMBOLS] The authors should add a table of symbols in the revised manuscript.
- (28) [CONCLUSIONS] The conclusions in this manuscript are primitive. Please, write your conclusions.
- (29) [REFERENCES] There are no citations for many sentences in the manuscript. Why? Please check.
- (30) [REFERENCES] The references should be written in the same style following the journal authors' guidance.
- (31) [REFERENCES] Recent citations from 2021 should be added to the manuscript. Only one is found.
- (32) [PROOFING] The authors should get editing help from someone with full professional proficiency in English.
- (33) [PROOFING] The manuscript should be checked again to fix any typos such as missing spaces and commas.
- (34) [CONSISTENCY] The manuscript structure is too short. It must be elaborated in their applied technology as should support more rigorous technical aspects.
- (35) [CONSISTENCY] Some paragraphs are wrapped in more than 10 lines. They should be split concisely.
- (36) [NOVELTY] What is the novelty of the suggested approach?
- (37) [LIMITATIONS] What are the limitations of the current study? It should be added in a separate section.

For the authors in case of the authors got a chance to review the manuscript and submit the revised one after the editor's decision, please, provide a <u>table</u> in the revised manuscript

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mentioning (1) the comment, (2) the authors' response, and (3) the authors' change (if applicable). Please, consider all of the comments and don't ignore any of them.

Please, refer to the attached file "67980v1 Reviewer.pdf" for the same comments in an organized format.