

List of Revisions for the Paper: Boosting House Price Estimations with Multi-Head Gated Attention

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We would like to express our gratitude to the Editor for overseeing our paper and the reviewers for their insightful comments and recommendations. We have carefully considered all of the suggestions made by the reviewers and have made the necessary revisions to the paper. Our responses to the reviewers' comments and the specific changes we have made are outlined below. We hope that this revised version meets all of the requirements suggested by the reviewers. Please note that any added text can be found in blue in the corrected version. Specifically, we have done the following:

Reviewer 1 :

- **Comment 1:** In the Fig.1 architecture representation, we can find the house structural features and house geographical coordinates have two directions respectively. Will this process make much redundancy in the input of the hidden layer?

Response: Thank you for your comment. We have added a paragraph in the methodology section explaining why both structural and geographical features are essential and how they complement each other to capture comprehensive spatial dependencies accurately.

- **Comment 2:** Authors introduce lots of similarity calculation functions. I can't imagine which one is used in the experiments.

Response: We have clarified in the methodology section which similarity functions were ultimately used in the experiments. A table has been added to detail this in the experimental setup section.

- **Comment 3:** Authors list lots of existing regression methods. In Table 3 and 5, experiments data reveal Boost-like methods do not always have advantages on other methods. So, why do authors choose "Boosting" word

Response: We have added the explicit formula for geodesic distance in the methodology section where it is first mentioned.

- **Comment 5:** Discrepancies exist between the hyperparameters listed in Table 2 and those described in the text. For instance, are "num geo" and num euc in the text equivalent to "nearest-geo" and "nearest-Euclid" in the table?

Response: We have cross-verified and ensured consistency in hyperparameter values between the text and tables. The table and text have been updated accordingly.

- **Comment 6:** Table 4 suggests a moderate improvement in ASI with the proposed model. Could the authors provide an analysis of the factors contributing to this modest enhancement? Suggested avenues for further exploration include expanding the experimental scope or conducting additional significance tests.

Response: We have added a subsection in the results discussing the factors contributing to the moderate improvement in ASI, including possible reasons and further avenues for exploration.

- **Comment 7:** The manuscript references prior research on GWR and ANN, with GWNN, GNNWR, and GWANN models emerging as leading models that merge neural networks with GWR. It would be beneficial for the study to draw upon and compare with relevant works in this domain.

Response: We have expanded the related works section to include a detailed comparison with these models. The strengths and weaknesses of the proposed method in relation to these models are discussed.

Reviewer 3 :

- **Comment 1:** The novelty/originality should be clearly provided that the article contains sufficient contributions to the new body of knowledge for the international community. The uniqueness and contribution of this paper are not clear.

Response: We have added a dedicated paragraph in the introduction and conclusion sections clearly stating the novelty and contributions of the proposed method.

- **Comment 2:** Importance and uniqueness of concepts and arguments should be more discussed with sufficient literature and evidence.

Response: We have enriched the discussion section with additional references and evidence highlighting the importance and uniqueness of the proposed concepts.

- **Comment 3:** Expert Systems With Applications is an international academic journal. This paper needs to discuss the following: What new knowledge can this paper contribute to the existing international literature and community? How to link the findings and conclusions in this paper with the previous findings and conclusions from other countries? Its introduction, analysis and discussions should be beyond the local case itself. The finding and conclusion should be generalized to other cases and cities.

Response: We have added a section discussing the generalizability of the findings and how they relate to international literature. Examples from different regions are provided.

- **Comment 4:** The relevant implications should be offered clearly based on key findings.

Response: We have enhanced the conclusion section by clearly stating the practical and theoretical implications of the findings.

- **Comment 5:** Limitation of this study should be added at the end of Conclusion part.

Response: We have included a paragraph at the end of the conclusion discussing the limitations of the study and potential future research directions.