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Peer Review

Review of: "LLM-ABBA: Understanding Time Series via Symbolic Approximation"

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Dear Authors,

You provided an interesting contribution to the usage of LLMs over time series data, highlighting reusability. However, I find a few points that should be studied and reworked. In particular,

1) Section I, Page 3, paragraph starting -"Our contribution includes....", Point 4 looks like a general statement; is it rightly your contribution in the paper?

2) Table IV discusses the reconstruction performance of ABBA on ETTH1 time series data. It is evident from the MSE and MAE that the reconstruction does have errors, which is natural. However, the correlation coefficient fails to indicate the reconstruction errors. Clarity should be brought out on this abnormality.

3) Table VII discusses the performance of the proposed ABBA-LLM for regression tasks on various types of data. Authors should verify if the numbers are correct for the BenzeneConcentration dataset; the SOTA gives an RMSE of 0.64, while the proposed gives 4.0 as the best RMSE. Still, the paper highlights the proposed framework as better than SOTA by keeping the RMSE of 4.0 in bold. It is not correct, as the RMSE of 0.64 is far better than the RMSE of 4.0.

4) Figure 6. Sub-captions: Should it be "feature"?

5) In some places, the algorithm used for fine-tuning is mentioned as "adapter fine-tuning

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methods," while in some places, it is "adaption fine-tuning methods." Verify the term and use the terms consistently.

6) The writing style of the term SSE is inconsistent in the second paragraph of Section-III.A.2. Three different styles of writing are evident.

Declarations

Potential competing interests: No potential competing interests to declare.