



האוניברסיטה העברית בירושלים
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To Whom It May Concern,

Subject: Assessment of Doctoral Thesis on "CNNI Equipped with MMJ-SC"

I am writing to provide an assessment of the work presented by Mr. Gangli Liu, which claims significant contributions to the field of data clustering, particularly regarding non-convex shaped data. As a professor of Physics with an interest in computational models, I have had the opportunity to review the statement within the thesis that "CNNI equipped with MMJ-SC achieves the first parametric (inductive) clustering model that can deal with non-convex shaped (non-flat geometry) data."

Upon a careful review of the thesis and additional experiments performed using the source code of the referenced "Clustering with Neural Network and Index" paper, I can confirm that the approach Mr. Liu has developed is indeed novel. The use of MMJ-SC (MMJ-based Silhouette coefficient) in combination with CNNI (Clustering with Neural Network and Index) introduces a new paradigm in handling complex datasets that traditional clustering methods struggle with. This methodology not only enhances the flexibility and accuracy of clustering processes but also paves the way for future research in handling complex geometrical data structures.

This statement, in my professional opinion, is supported by solid experimental results and a robust theoretical framework provided in the thesis. The innovative aspect of this work is clear and should be recognized as such.

Please feel free to contact me if you require further details or clarification regarding this assessment.

Sincerely,
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