

Review of: "An Improved Hybrid Transfer Learning-Based Deep Learning Model for Alzheimer's Disease Detection Using CT and MRI Scans"

Eleftheria S. Sergaki¹

¹ Technical University of Crete

Potential competing interests: No potential competing interests to declare.

Review of the basics that I would expect to be included:

1. The proposed CNNs based on transfer learning is not compared to at least one CNN not based on transfer learning. The authors have to do it. The VGG, Desnet, Resnet, are not trained by medical images such as MRIs. There are publications that show that CNNs for medical diagnosis using MRIs, not based on transfer learning are more efficient than based on transfer learning.
2. The authors have to include a table of Hyper-parameters setting of each CNN.
3. The authors have to include a table of each CNN configurations.
4. The data used and have to be clearly expained (how many are T1, T2, how many axial plane, ...). The authors have to give more info: i.e. for the size of not normal areas. Moreover to report if there are doctors in team that examed each MRI.
5. In order to compare the performances of pairs of different CNNs models it is needed to apply more statistics. I.e. the Edwards variant of McNemar Test, within subjects chi-squared test in order to examine if their variations are statistically significant, or is it due to randomness.