GEOM-GCN: GEOMETRIC GRAPH CONVOLUTIONAL NETWORKS

Problem Statement:

1. The aggregators lose the structural information of nodes in neighborhoods.
2. The aggregators lack the ability to capture long-range dependencies in disassortative graphs

Minutes of Presentation

Q1.Why are we comparing two elements in latent space? What will happen if the length of the vector is 10?

Answer: In paper for the convinence they have used the 2-dimensinal space due to which we had two elements. To answer the other part we need to explore the code to know if there's a dimensionality flexibility or not. If not, then it's a short coming of this paper.

Q2.What are we getting after low level aggregation?

Answer: After first layer aggregation we get the column vectors of the nodes that we then multipy it by some scalar value and apply mean to it and pass it to the dense layer.

Q3.What is the time complexity of training model?

Answer: As we don't have a trained model so we have to do the training by ourselves from the scartch and our system crashed in the middle, so willl let you know about the time complexity after running the code.

Extension

1. Adding attention blocks after low level aggregation.
2. Trying new embedding methods.
3. Introducing weight matrix.