Actional-Structual Graph Convolutional Networks for Skeleton-based Action Recognition

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Part Ⅰ Basic information

1. **Title:** Actional-Structual Graph Convolutional Networks for Skeleton-based Action Recognition
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Part Ⅱ Paper structure

1. **Introduction**
2. **Problem Description**
3. **The Proposed Algorithm**
4. **Experiments and Discussions**
5. **Conclusion**

Part Ⅳ Perspective

While I was reading, 3 key points attracted me: GCN，

While CNN is indeed effective in many computer vision problems, it could not process data with Non Euclidean Structure. However, data generated from reality always has such structure. GCN is used to solve this problem. It advanced the encoding method and was more adaptive to real data. In my opinion, the necessity of GCN is correspond to our requirement or demand to extract spatial features from topological graph. CNN is relatively restrained because the size of convolutional kernel is constant. Broadly speaking, topology relation could be established to any kind of data in normed space(spectral clustering is an example for employing this thought). Thus I think GCN has enormous development space in the future. I learned the basic theory of GCN. There are two methods to extract spatial features from a topological graph: vertex domain and spectral domain.