

Summary

The main work of the paper is to use multiple views to discover the correlation among regions. The inputs are urban human mobility consisted of source and destination of trips, and urban region attributes, including Pols and check-in records. The outputs is a embedding of each urban region. The paper propose a base model by using single view and a joint learning module consisted of a cross-view information sharing and a multi-view fusion. And the outputs of the base model will be fed into the joint learning module. The learning tasks are source and destination prediction and region relations reconstruction. Baselines are various, including single view methods, graph embedding methods, state-of-the-art methods, and variant of the proposed method. Results show the proposed method outperform the state-of-the-art methods in land usage classification and crime prediction.

Question

$$w_{r_j}^{r_i}$$

1 Didn't get the meaning of

$$\mathbf{h}$$

2 Didn't get the meaning of

3 why feeding the outputs of the base model into the joint learning module

$$\tilde{\mathcal{E}}_i = (\hat{\mathcal{E}}_i + \mathcal{E})/2. \tag{12}$$

4 why 2 in

5 what is the function of $\tilde{\mathcal{E}}_s, \tilde{\mathcal{E}}_d, \tilde{\mathcal{E}}_{poi}$ and \mathcal{E}_{chk} in following context