General Session | General Session | [GS] J-2 Machine learning

[1J4-J-3]Data mining: social mining

Chair:Shogo Okada Reviewer:Tomoya Yoshikawa
Tue. Jun 4, 2019 5:20 PM - 6:20 PM Room J (201B Medium meeting room)

6:00 PM - 6:20 PM

[1J4-J-3-03]Application of density Sphere graph-CNN based deep learning to congestion prediction

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Keywords:Density sphere, GraphCNN, Congestion prediction

In this paper, we study the data classification in a high dimensional space based on density spheres for traffic data sets with many samples and features, and predict traffic congestion by creating a distance matrix from features with Density Sphere GraphCNN. Density spheres represent the density which serves as a reference for clustering data in a high dimensional space, and it is possible to investigate the relationship of data by considering both data correlation and distance. A mechanism to realize highly accurate congestion prediction will be studied based on the result of predicting the degree of congestion by combining traffic simulation model, which reproduces congestion and compares the prediction accuracy by varying the volume of density balls