Explanation on Base Attractiveness Score Tables

2025.02.05 DZ

The enclosed zip includes 9 data tables corresponding to the 9 time windows specified by MBTA. Within each table, we have these columns (use “NIGHT” as an example):

- 'Station_Name': Name of the station. In total 114 stations in consideration.
- 'Lon': Longitude
- 'Lat': Latitude
- 'Station_ID': ID of the station, which combined with the edge info in the `Edge.csv` could produce the MBTA map.
- 'Passenger_Volume': Average passenger volume at the station during the time period (here, NIGHT).
- 'Nearest_Police_Distance': Distance from the station to the closest police department
- 'Nearest_Fire_Distance': Distance from the station to the closest fire department
- 'Nearest_Hospital_Distance': Distance from the station to the closest hospital
- 'Betweenness Centrality': Measures how often the station lies on the shortest path between all pairs of nodes
- 'Crime_Index': Derived based on spatial crime patterns (higher values mean higher crime concentration)
- 'Base_Attractiveness_Score_NIGHT'

The values of the six features ('Passenger_Volume', 'Nearest_Police_Distance', 'Nearest_Fire_Distance', 'Nearest_Hospital_Distance', 'Betweenness Centrality', 'Crime_Index') are all normalized into $[0, 1]$, and the Base_Attractiveness_Score is a weighted summation of the feature values.