From Trajectory to Knowledge: Trajectory Behavior Analysis and Mining in Maritime

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Abstract

Advances in position sensing techniques and location-aware devices have made to possible to collect enormous quantities of trajectory data from moving objects. Such large bodies of data offer a wide scope for trajectory research and consequent application in a diverse range of fields, such as movement behavior analysis, location prediction, LBSN, traffic analysis, and travel recommendations.

However, data uncertainty, which is inherent in the trajectory data brings the challenges in knowledge discovering from trajectory. The problem is made even more difficult in trajectory data collected from maritime due to the free movement environment. In this talk, we discuss the challenges of trajectory data mining and present the effective approaches for knowledge discovery in maritime traffic and anomaly detection.