Trajectory clustering for behavioral pattern learning in transportation surveillance

Abstract

The development of an efficient traffic flow monitoring system has been the main focus for many researchers working in the field. Due to the rapid development in urbanization, the complexity of traffic intersections provides challenges for researchers to detect the underlying traffic scenes. With the emerging video based surveillance system, vehicle trajectory can be extracted for observation and prediction via behavioral pattern learning. Prior to the learning, clustering of the extracted vehicle trajectory data is performed to group the data based on similarity measures. In this paper, the implementation of clustering algorithm on the trajectory data is analyzed and issues concerning the trajectory clustering are discussed.