

# An activity based trajectory search approach

Mohamed Mahmoud, Hoda M. O. Mokhtar

## Abstract

With the gigantic increment in portable applications use and the spread of positioning and location-aware technologies that we are seeing today, new procedures and methodologies for location-based strategies are required. Location recommendation is one of the highly demanded location-aware applications uniquely with the wide accessibility of social network applications that are location-aware including Facebook check-ins, Foursquare, and others. In this paper, we aim to present a new methodology for location recommendation. The proposed approach coordinates customary spatial traits alongside other essential components including shortest distance, and user interests. We also present another idea namely, "activity trajectory" that represents trajectory that fulfills the set of activities that the user is intrigued to do. The approach dispatched acquaints the related distance value to select trajectory(ies) with minimum cost value (distance) and spatial-area to prune unneeded directions. The proposed calculation utilizes the idea of movement direction to prescribe most comparable N-trajectory(ies) that matches the client's required action design with least voyaging separation. To upgrade the execution of the proposed approach, parallel handling is applied through the employment of a MapReduce based approach. Experiments taking into account genuine information sets were built up and tested for assessing the proposed approach. The exhibited tests indicate how the proposed approach beats different strategies giving better precision and run time.

*International Journal of Computer, Electrical, automation, Control and Information Engineering*