A Clustering Model for Taxi Customer to Avoid Covid-19 Potential Infection Using GPS Trajectory Data

Do Phu An, Pham Xuan Quang, Le Hai Son

***Abstract*—Advances in GPS tracking technology have enabled us to install GPS tracking devices in city taxis to collect a large amount of GPS traces under operational time constraints. These day, Covid-19 is a serious problem, Taxi's customer should avoid crowded place or avoid the place's rush hours to protect there self. These GPS traces provide unparallel opportunities for us to uncover crowded location and respective time. It help to give recommendation to avoid Covid-19 potential impact. In this paper, we develop an "analysis system to avoid Covid-19 potential infection for Taxi Passenger", which is able to systematically investigate taxi locations thence inferred passenger's crowed places and times. In this system, we first provide systems to find two parameters: location and time. To implement the system, we first identify interesting aspects from a large amount of taxi GPS logs. Then, we propose a clustering method to mine the location. Based on locations, we exploit the system to identify the time frame. Finally, we analysis the results and give recommendations to avoid crowed places and times, which helping to avoid Covid-19 potential infection.**

***Index Terms*—Clustering, big data, taxi, location, time, GPS.**

I. Introduction - **SON**

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August 26, 2015

A. Subsection Heading Here

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II. Methodology

A. Approach - ***Son***

The Approach goes here.

B. Program procedure - ***An***

The Program procedure goes here.

III. Data - **Quang**

The data goes here.

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IV. Results and Discussion - **Quang**

The RESULTS AND DISCUSSION goes here.

Appendix A
Proof of the First Zonklar Equation

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Appendix B

Appendix two text goes here.

Acknowledgment

The authors would like to thank...

References

[1] H. Kopka and P. W. Daly, *A Guide to LaTeX*, 3rd ed. Harlow, England: Addison-Wesley, 1999.

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