

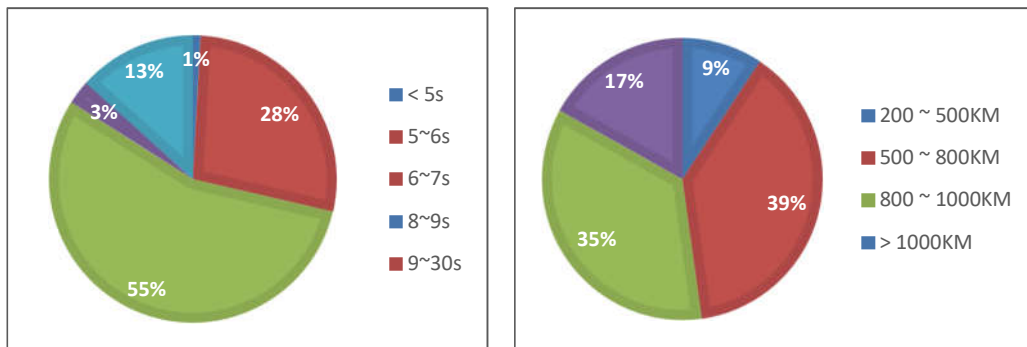
User Guide of JUST-Trucks Data

Version 1.0

Updated on July 21, 2020

1. Data Description

This trajectory dataset was collected from 14 delivery trucks of JD Logistics in the period of Apr. 1 to Jun. 20, 2020. The main routes of these trucks are commuting between Maoming Distribution Center and Guangzhou Distribution Center. Trajectories are represented by GPS points in this dataset. The total number of GPS points is about 7.47 million, and the total distance of the trajectories reaches to 0.96 million kilometers. Figure 1(a) and Figure 2(b) plot the pie charts about the distribution of sampling rate and trajectory length, respectively. The average sampling interval is about 6 seconds. Figure 2 and Figure 3 shows the density distribution (heat map) and the geographic visualization of GPS points in this dataset, respectively.



(a) Sampling Rate

(b) Trajectory Length

Fig. 1. Statics of the trajectories

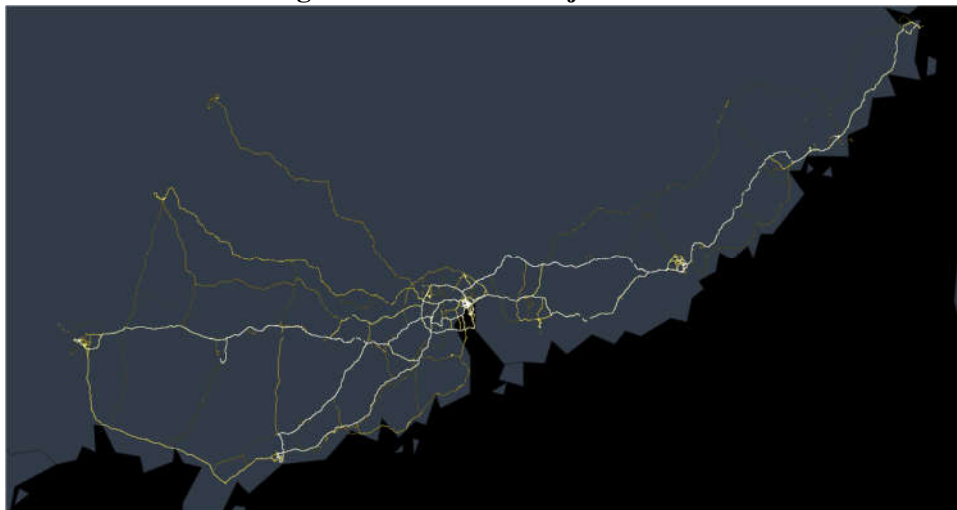


Fig. 2. Distribution of GPS points, where the color indicates the density of points

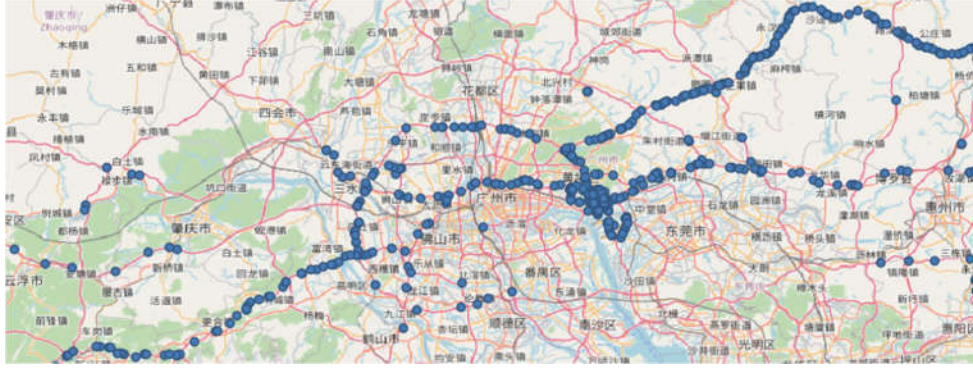


Fig. 3. Visualization of a sample trajectory

2. Data Format

Here is a piece of samples in the file:

```
AJY9M34,1585678365000,113.449114,23.152141
AJY9M34,1585678374000,113.449109,23.152145
AJY9M34,1585678380000,113.449106,23.152148
AJY9M34,1585678384000,113.449104,23.152151
AJY9M34,1585678394000,113.449099,23.152161
AJY9M34,1585678395000,113.449098,23.152163
AJY9M34,1585678404000,113.449094,23.152165
AJY9M34,1585678410000,113.449091,23.152165
AJY9M34,1585678414000,113.449088,23.152165
.....
```

Each line of this file has the following fields, separated by a comma:

Truck ID, Timestamp in ms, Longitude, Latitude

3. Contact

If you have any questions about this dataset, please contact **Ruiyuan Li** from JD iCity.

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4. Paper Citation

Please cite the following papers when using the dataset:

- [1] Ruiyuan Li, Huajun He, Rubin Wang, Yuchuan Huang, Junwen Liu, Sijie Ruan, Tianfu He, Jie Bao, Yu Zheng. JUST: JD Urban Spatio-Temporal Data Engine. In 2020 IEEE 36th International Conference on Data Engineering (ICDE) (pp. 1558-1569). IEEE.

5. License Agreement

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