Road intersections

1-select OD Matrix size based on intersection type (cross intersection, T intersection ,roundabout intersection, no intersection)

2-fill OD Matrix with random data

3-select path between source and destination based on probability of each source and destination, source and destination can`t be the same as we suppose that there is no return in the same path

4-based on intersection type we create the path between the source and destination

5-we introduce many parameter to simulate the real trajectory

Like sampling time , sampling rate of the data , length of path , radius of the round if present , sampling rate of car trips , noise size in each direction (x, y) , mean of the data , standard deviation of the data in each direction (x, y), distance between two besides road, number of points represent the roundabout circle.

6-if it`s roundabout intersection we create linear path for source and destination and then we add roundabout circle and finally we filter data based on the parameters that we want

7-if it`s cross intersection we create linear path for source and destination and filter data based on the parameters that we want

8-if it`s T intersection we create linear path for source and destination and filter data based on the parameters that we want

9-if it`s no intersection we create linear path for source and destination and filter data based on the parameters that we want