

Assignment 3, part I: Analyze your Trajectories (Due on 10/17/2020)

Extract maximum 1 month of information from your **History Locations.json** files of google takeout.

1. Parameters Exploration:

Focus in 1 or 2 days were you visited a few locations.

Follow the example of Lecture 11 to filter the data and extract stop locations.

Present more than one map as the ones shown in class for a 2 day trajectory when changing the parameters used to detect the stops.

Meaning, show a few maps similar to the map below, changing various parameters of stop detection until you are satisfied with the results of the 2 days.

(10 pts)

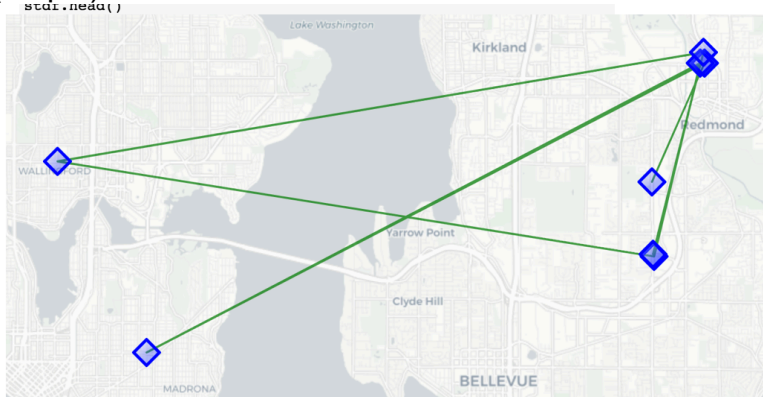


Figure 1.

2. After you are satisfied with the extracted information of 2 days, make a program that count your trips in the two target days. Then analyze and report the results of your entire time of observation. Plot the number of trips per, See Fig 2A as guideline (10 pts)
3. Calculate a the distribution for the duration of your stops. Similar to Fig 2B (10 pts)
4. Calculate a distribution for the total traveled in your trips. See Fig 2C as guideline. (10 pts)
5. Calculate the distribution for the speed of your trips. (25 pts)

6. Report the fraction of the total stays in each of your locations, similar to the $P(L)$ vs. L of the Nature paper, presented in Fig 2C. . (25 pts)

7. What is you Radius of Gyration? (10 pts)

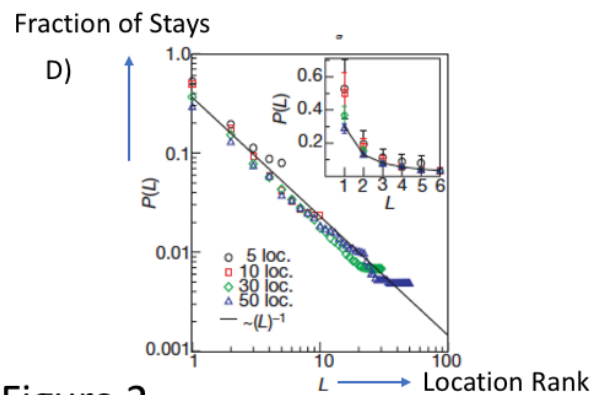
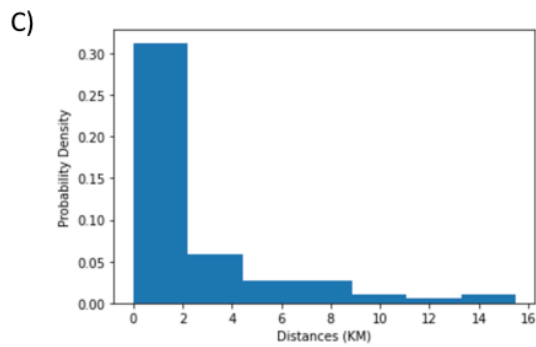
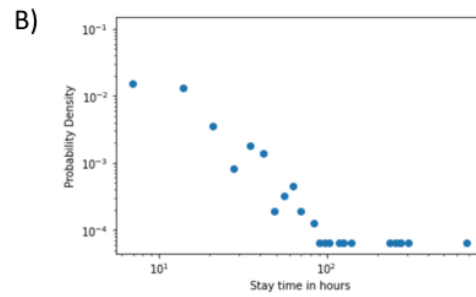
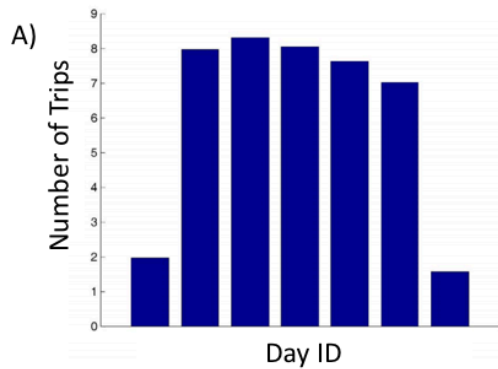


Figure 2