Machine Learning: Data to Models Final Project Proposal

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1. Overall Goal

We are going to use taxi trip history data to predict the destination for each ride according to the pick-up location, time, date, and etc.

2. Data Source

NYC Taxi and Limousine Commission (TLC) trip record dataset, http://www.nyc.gov/html/tlc/html/about/trip_record_data.shtml

3. A brief description of approach

We may use Bayesian statistics to construct a model and use MAP to estimate related parameters. According to the reference paper, we may need to use Neural Network method although we don't know that now.

4. Team Mates

Qun Gao

Li-Yi Lin

5. Reference for Related Work

- (a) Making a Bayesian Model to Infer Uber Rider Destinations. https://newsroom.uber.com/inferring-uber-rider-destinations
- (b) Artificial Neural Networks Applied to Taxi Destination Prediction, http://arxiv.org/abs/1508.00021
- (c) A Framework for Predicting Trajectories Using Global and Local Information. http://www-users.cs.umn.edu/ gini/papers/groves14cf.pdf