

Business Problem

California boasts an incredibly diverse collection of restaurants catering to different palettes and appetites. A large part of marketing for a modern restaurant (or any company) is social media, where the number of "likes" that the company can receive will dictate its brand and image to the general public.

For a new business owner (or existing company) to open a new restaurant in California, knowing ahead of time the potential social media image they can have would provide an excellent solution to the ever present business problem of uncertainty. In this case the uncertainty is regarding performance of social media presence.

We can mitigate this uncertainty through leveraging data gathered from FourSquare's API, specifically, we are able to scrape "likes" data of different restaurants directly from the API as well as their location and category of cuisine. The question we will try to address is, how accurately can we predict the amount of "likes" a new restaurant opening in this region can expect to have based on the type of cuisine it will serve and which city in California it will open in. (For the purposes of this analysis, we will contain the geographical scope of analysis to three heavily populated cities in California, namely San Francisco, Los Angeles, and San Diego).

Leveraging this data will solve the problem as it allows the new business owner (or existing company) to make preemptive business decisions regarding opening the restaurant in terms of whether it is feasible to open one in this region and expect good social media presence, what type of cuisine and which city of three would be the best. This project will analyze and model the data via machine learning through comparing both linear and logistic regressions to see which method will yield better predictive capabilities after training and testing.