

FOOD INSPECTION

Failure is not an option... unless it is?

HOW MUCH SHOULD YOU WORRY?

Running a restaurant is hard, especially with the government breathing down your neck about “cleanliness” and “standards”. Want a quick way to know whether or not you’re going to fail, or what violations you can get away with?

Then do I have a solution for you!

[Follow me to the solution...](#)

THE SECRET INGREDIENT: DATA

To build my prediction I needed a reliable, recent, and standard data set of previous Food Inspection outcomes for the city of Chicago. Luckily, the Chicago has a public API that updates with the daily outcomes for Food Inspections across the city. Here's a quick look into some features collected:

Inspection ID: Unique identifier

Inspection Type: Recent, Repeat, Complaint

Restaurant Name: Poodle's Noodles

Location: 7632 Elmer Blvd, Chicago IL 60213

Violations: Text describing violations

AN OLD FAMILY RECIPE

- To predict the outcome of a given inspection I used a good ole' fashion, tried and true **logistic regression**.
- The inputs for this classifier are: *estimates for types of infractions, zip code, Risk Category, and Type of Inspection.*
- To evaluate my approach, I looked into the CCR of my classifier. My model results change over time, considering the new data updated daily, but a recent evaluation shows a $CCR = 0.842$, which is above the baseline of just guessing Pass.

SOME INFRACTIONS ARE OKAY!

- Depending on the data, having some infractions doesn't result in a failure! But how many can you get away with?
- Why don't you go to the app and find out!

THANK YOU!