Cuisine Machine

What's cookin'?

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Motivation

Help people choose a cuisine for the next meal they cook based on ingredients they have in their pantry.

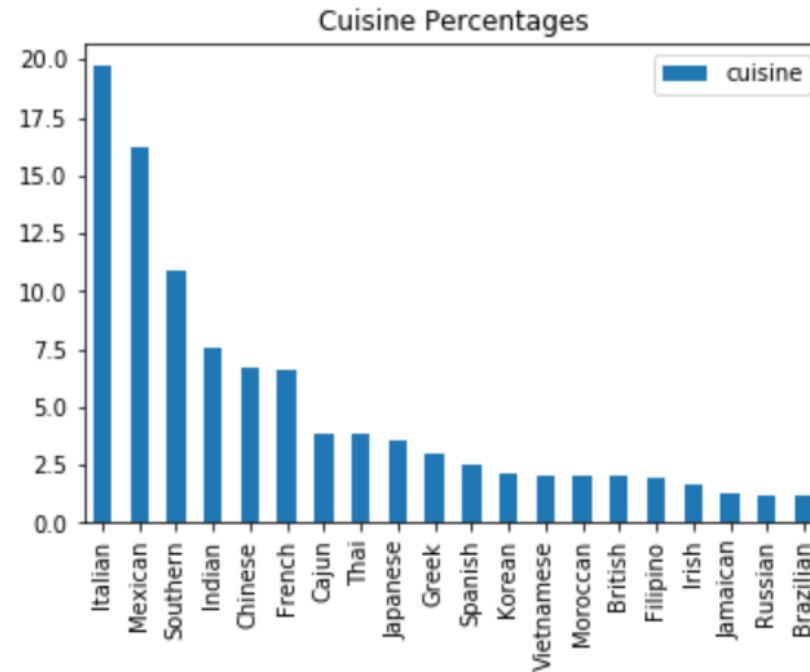# Demo

http://cuisine-machine.us-east-2.elasticbeanstalk.com/

Data

40,000 recipes from Yummly in .json files including cuisine and ingredients

20 different cuisines, skewed towards Italian, Mexican, Southern US

```
{
    "id": 33465,
    "cuisine": "thai",
    "ingredients": [
        "eggs",
        "shallots",
        "firm tofu",
        "beansprouts",
        "turnips",
        "palm sugar",
        "vegetable oil",
        "garlic cloves",
        "sliced chicken",
        "fish sauce",
        "lime wedges",
        "roasted peanuts",
        "green papaya",
        "chile powder",
        "ground black pepper",
        "tamarind paste",
        "chinese chives"
    ]
},
```
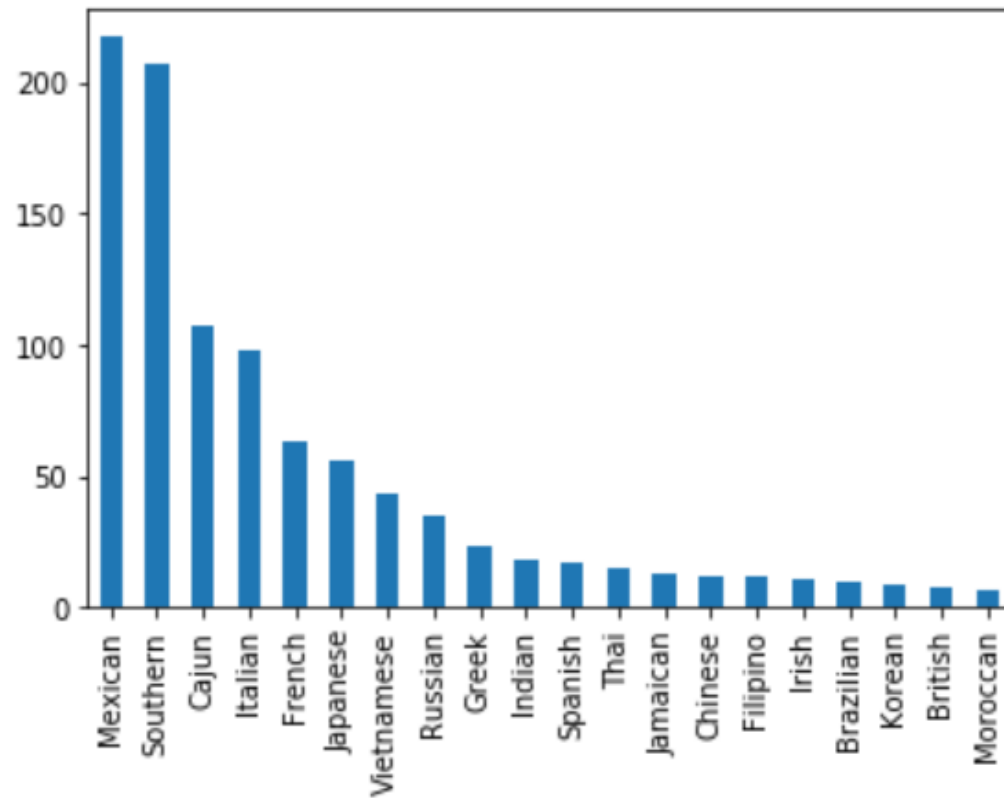
Cuisine Percentages

Model

- Features
  - Vectorize ingredient list
  - TF-IDF
    - term frequency: how frequently a term occurs
    - inverse document frequency: how important a term is

- Classifier
  - Logistic regression

- Success
  - 79% accuracy using 10-fold CV
  - Compared to 20% accuracy with no model

Insight

Lots of different cuisines use mayo!

Thank you!

Cuisine Machine

Enter your ingredients:

cilantro, red chili powder, garlic, jack cheese, tortillas

Submit

Cuisine Machine

Here's the predicted cuisine.

Mexican