

The Fridge Scrounger

- A Recipe Recommender For
Indecisive Home Cooks

Ed Lee (DSML), Jan 2023

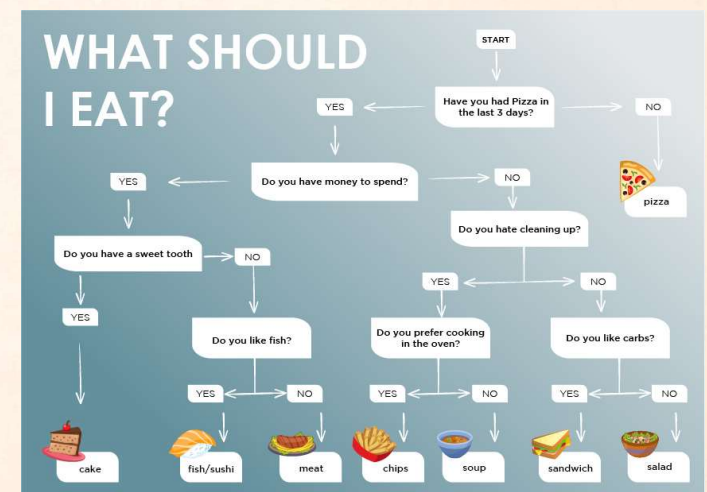


Intro - Motivation



Sometimes it is hard to decide what to eat (cook):

- To get some rough idea for a starter...
 - a. Think of some vague ingredients
 - b. Or maybe a broad category of food
- Potentially suggest some foods and their recipes from those rough idea
- **Headstone: A NLP topic model of the dataset**



<https://blogs.salford.ac.uk/made-in-salford/2017/06/01/what-to-eat/>

Objective



Create a a web app that utilizes the dataset and topic model to run a recipe recommender



<https://blogs.salford.ac.uk/made-in-salford/2017/06/01/what-to-eat/>

Dataset

- Dataset contains **recipes** and its **related info** from *food.com*, obtained via kaggle.
 - Raw dataset contains ~ 520k recipe articles (rows)
 - After removing rows with null values for desired columns: ~ **330k entries***
- * used a sample dataset of it for app showcase*



Work Flow – Data Pipeline

Data Preprocessing

Cleaning
Assigning topics (NMF)
Dataset saved as .CSV file



Data Storage

Backblaze B2 cloud storage



Web App Code

.py file at GitHub repo



Web App Deployment

Streamlit



Web App Overview

✓ **A lookup tool with a series of steps to aid making decision**

1. Ingredients filter
2. Topics filter (category)
3. Set conditions for more details (time, calories)
4. Suggests a random recipe with matching criteria

Can't decide what to cook?

The Fridge Scrounger

by Ed Lee (leeh_0504_190223)

Step 1. Which ingredients do you have?

- Choose up to three major ingredients you WILL use.

- NOTE: The app will search for the recipes that use ALL the ingredients you entered.
- Type in the ingredients in lowercase. You can leave these fields empty.

Ingredient Available 1
bacon

Ingredient Available 2
cheese

Ingredient Available 3

Step 2. What kind of food do you want to make?

- Think of a loose category.

Choose a category from the dropdown below:

Deli

You have selected: Deli

Step 3. Are you in a hurry?

Choose Cook Time

Now!!! (<30min) eventually

I want it... NOW!!! (<30min)

(Optional) Step 4. How much calories do you want?

Set Calorie Range

0 - 50 1014 - 40

0 - 60 1014 - 40

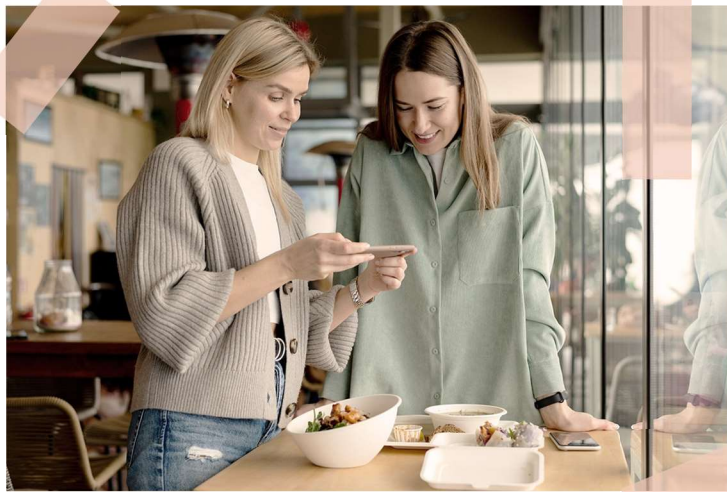
I don't care about the calories!

Here's a recipe for you

- Dish Name: Hammy Apple Cheddar Wrap

- Total Cook Time: 0.5 hours
- Calories: 1014 kcal
- The recipe makes 1.0 servings
- Ingredients: tortillas canadian bacon apple cheddar cheese
- Ingredient Quantities: 1/2 cup 1/2 cup 1/2 cup 1/2 cup

Future Works



✓ More Data Cleaning

- The dataset had several columns with bad formatting for data processing e.g., Ingredient quantities, instructions' paragraphs and more...

✓ Richer Features

- Adding more layers of topic models
 - > Based on other qualitative attributes such as warm/cold, light/heavy, 'heartiness,' etc
- Automatically take some of the user condition into account (time, temperature, location)
- Conversion into Flask?



Thanks!

Questions/Comments?



CREDITS: Diese Präsentationsvorlage wurde von Slidesgo erstellt, inklusive Icons von Flaticon und Infografiken & Bilder von Freepik

