

Reci-py Recommender

Minimizing food
waste



Motivation

- Food wastes ↓



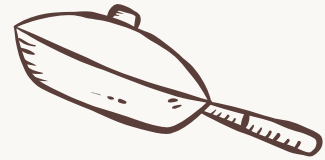
- Have decent meal while using ingredients that needs to be gone



“The average college student generate
142 pounds of food waste a year,
according to Recycling Works, a program
in Massachusetts.”



-NPR.org



Data

kaggle
Food.

Recipe dataset

- Name
- Estimated time to cook
- ID of the recipe
- List of ingredients
- etc

Interaction dataset

- User ID
- Recipe ID
- Rating of recipe give by a user
- Description/comment of the recipe made by the reviewer

Methods

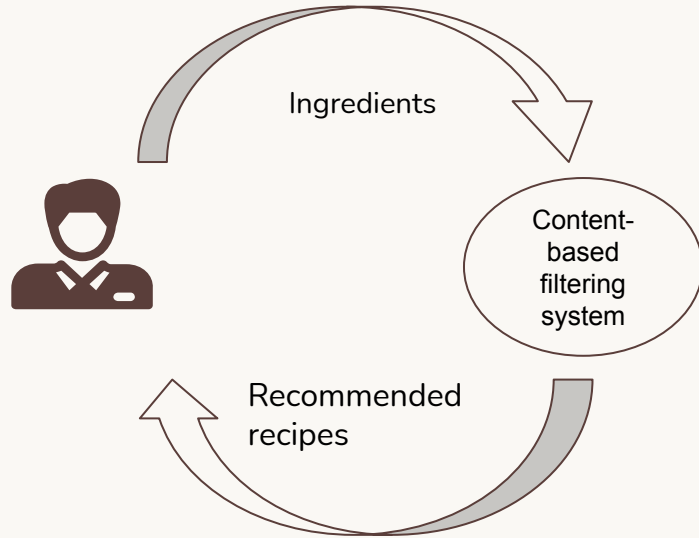
Content based filtering system

Comparing similarities between
recipes using list of ingredients

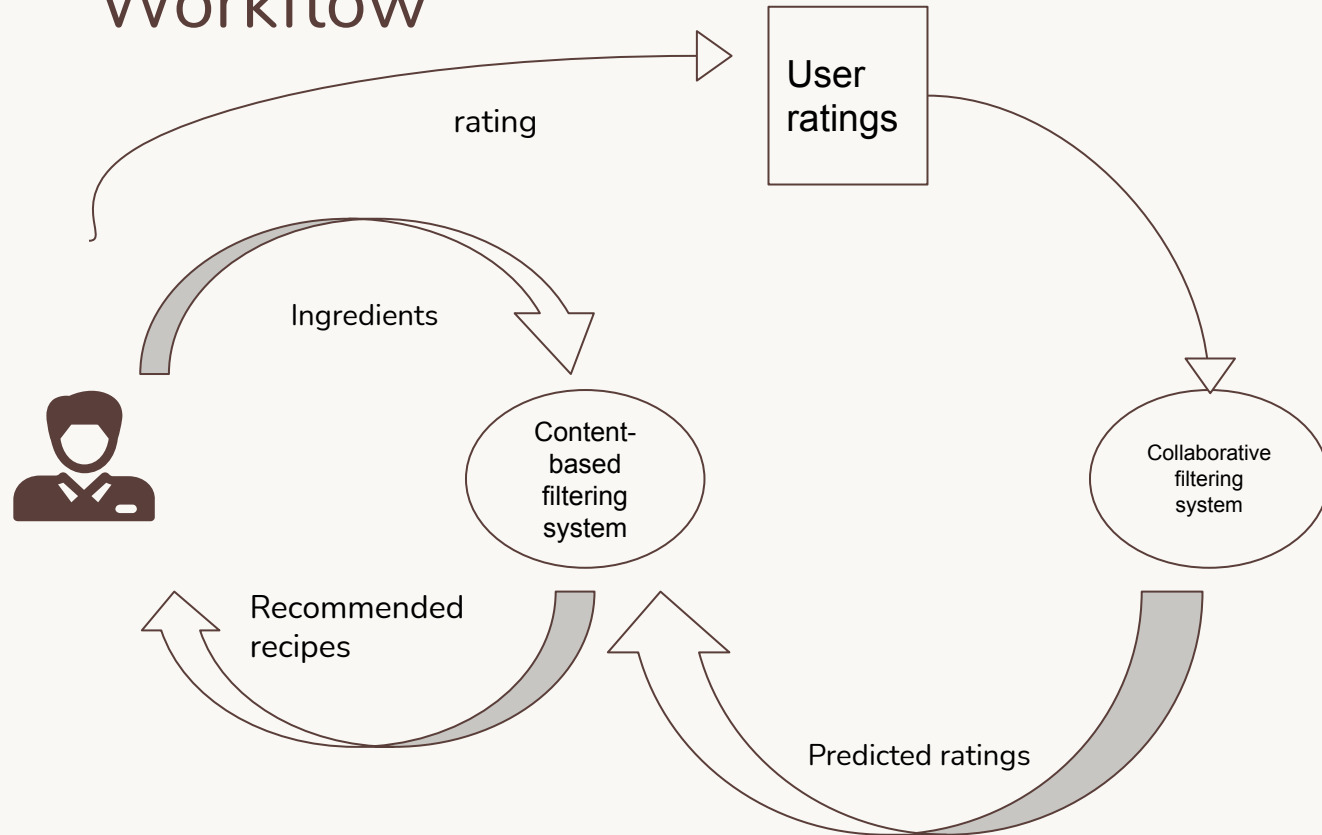
Collaborative filtering system

Predicting user preference
using other users' interaction
with recipes

Workflow



Workflow



Results

Example input ingredients

- Chicken breast, eggs, bacon, pepper, salt, lettuce, onion, garlic

Recommended recipe

Zucchini squash and bacon saut

40 minutes

ingredients:

- Zucchini
- Bacon
- Onion
- Tomatoes
- Garlic
- Salt & pepper

Steps:

- cut bacon into approximately 1-inch size pieces and fry until crisp
- add chopped onion and saut for a few minutes to lightly brown
- add sliced zucchini , minced garlic , salt , pepper and stir
- cover and lower heat
- simmer on low heat , stirring occasionally until squash gets soft
- add quartered tomatoes and simmer for 5-10 minutes more

Future Work

- Implementing image recognition to automate ingredient input
- Utilizing more data for the recommendation
 - Cooking time, recipe description tags, and nutritions informations
- Implement substitution ingredients to further decrease the food waste
- Scape image of food made from the recipe to show user

Thank you!



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