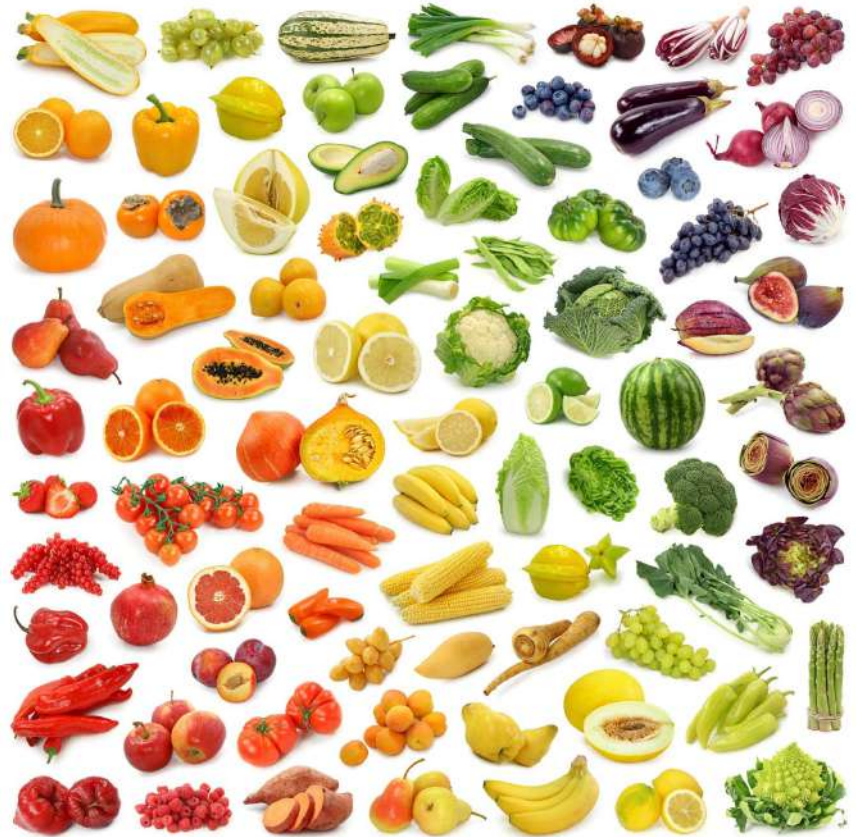# RECIP.AI

Generate an original recipe based on a dataset of recipes around the world while using local ingredients

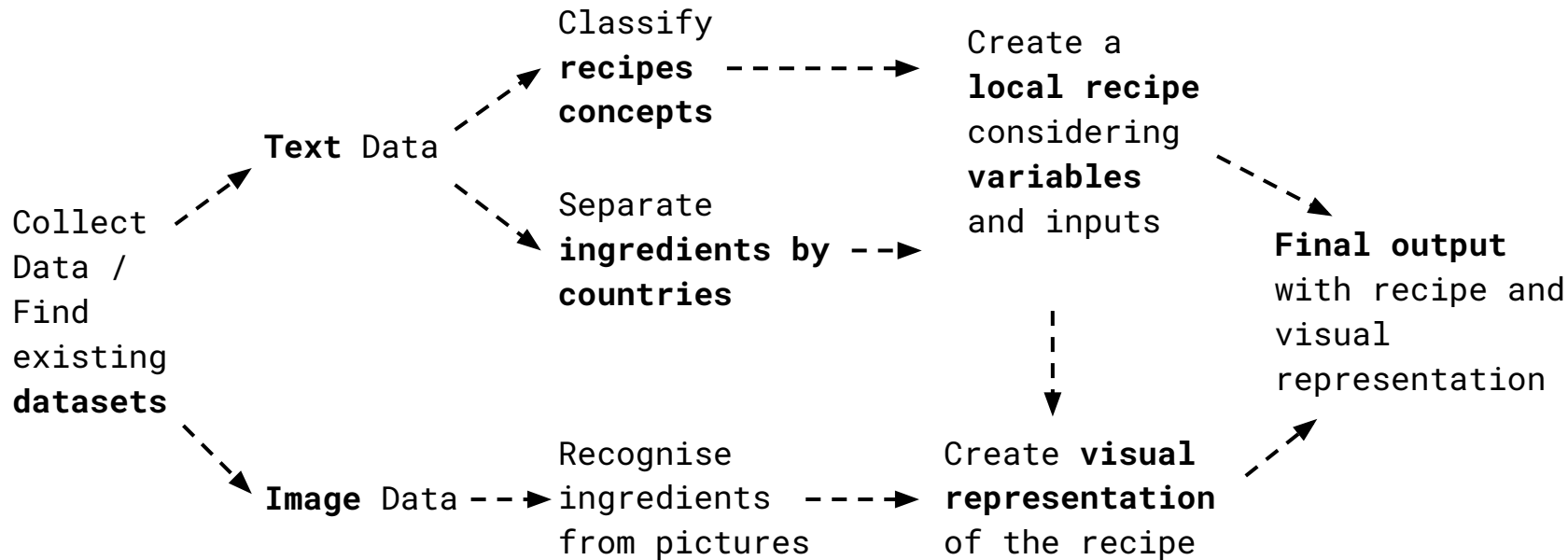Roberto, Dídac, Joaquin, Angel, Audrey

WHAT IS RECIP.AI?

It is a tool that generates an **original recipe** based on a dataset of recipes around the world while using **local ingredients**.
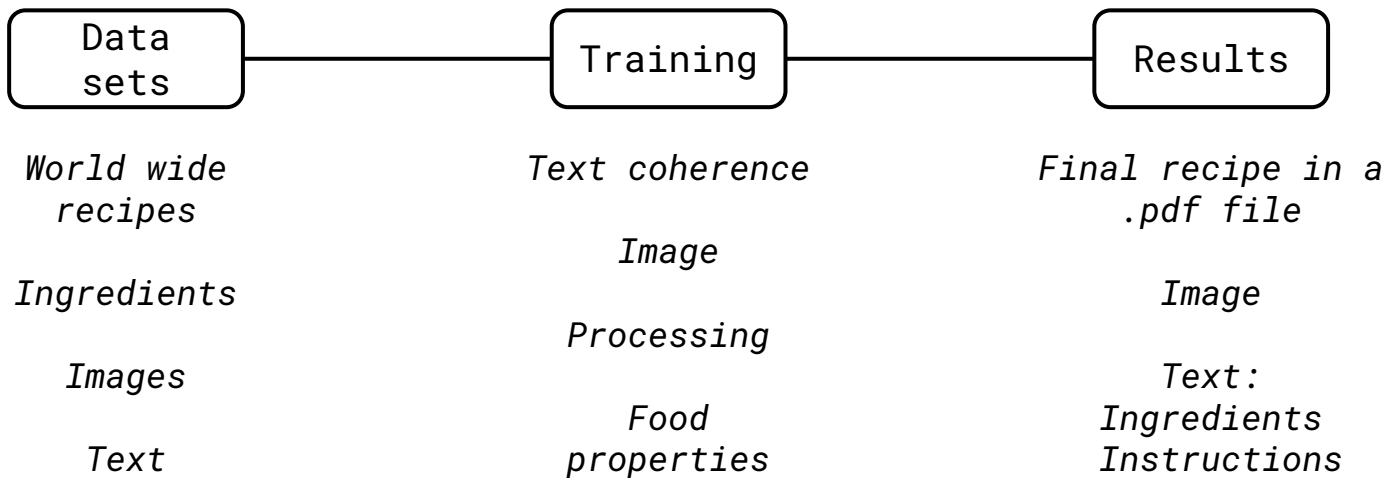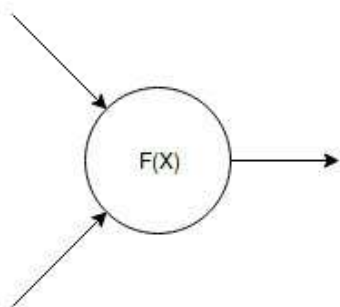
Takes into account diverse variables: spice, color, health, difficulty...

PROCESS

Collect Data / Find existing **datasets**

Text Data

Classify **recipes concepts**

Separate **ingredients by countries**

Create a **local recipe** considering **variables** and inputs

Image Data

Recognise ingredients from pictures

Create **visual representation** of the recipe

Final output with recipe and visual representation

FLOWCHART

F(X)

Data sets	Training	Results

World wide recipes

Ingredients

Images

Text

Text coherence

Image

Processing

Food properties

Final recipe in a .pdf file

Image

Text: Ingredients Instructions

DATASETS

1. Text data:

    - Recipes from all over the world
        - https://clickhouse.com/docs/en/getting-started/example-datasets/recipes/
        - https://www.yummly.com/
    - Local ingredients from every country
        - Taste Atlas API
          https://www.tasteatlas.com/api/v3/regions/1/data

2. Image data: pictures from cooked dishes

    - Ex: Recipe1M+ is a dataset which contains one million structured cooking recipes with 13M associated images.

WORLD INTERFACE

APPETIZER, POTATO DISH, BEEF DISH

Chorrillana

(Chorrillana, Bistec a la chorrillana)

CHILE

Chorrillana or *bistec a la chorrillana* is a popular Chilean dish served mostly in pubs where it is labeled as an appetizer or a dish that is meant to be shared. The basis of the meal are French fries which are covered in a combination of fried or scrambled eggs, strips of beef, and caramelized onions.

Common variations include additional ingredients like hot dogs, chorizo, and tomatoes, while the seasonings may include either garlic, oregano, or *pebre*—a popular Chilean condiment.

BEEF	POTATOES	EGGS	ONION	GARLIC	WORCEST... SAUCE

4.3 ★★★★½

✓ Ate it? Rate it

🔖 Wanna try?

+ Add to list

WORLD RECIPES

NEURAL NETWORKS

1

Network to recognise and classify text from recipes

2

Network to create recipes from local ingredients (recipes + local ingredients)

3

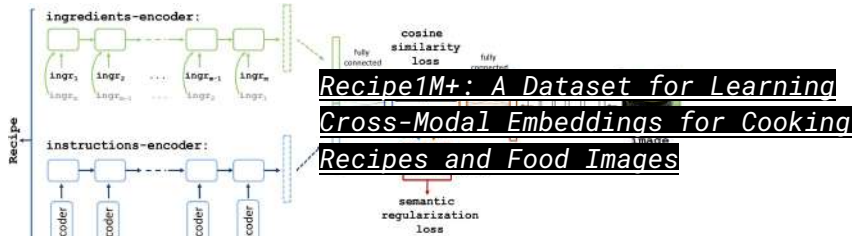Network for image ingredient recognition (http://pic2recipe.csail.mit.edu)

4

Network to generate the image of the recipe from the ingredients list (VQGAN and CLIP)

Do you have to train a network?

We need to train a network to receive various inputs in the form of ingredients and deliver an output upon the basis of its molecular components and materiality.

EXISTING RESOURCES

Similar Projects

Recipe1M+: A Dataset for Learning Cross-Modal Embeddings for Cooking Recipes and Food Images

Using machine learning to generate recipes that actually work

Computer Generated Recipes Are Hilariously Horrifying

Existing Colabs

recipe_generation_rnn.ipynb

Recipe generation colab

VQGAN+CLIP(Updated).ipynb

Image generation from text

EXPECTED RESULTS

An **original hybrid recipe** inspired by a global cuisine and made with local ingredients. The user is able to customize the final result through parameters in spiciness, difficulty, and color.

empanadas kimchi baguette plantains fuet

carrot & cheese

Empanadas kimchi baguette plantains fuet

Ingredients:
- Empanada
- Kimchi
- Baguette
- plantains
- Fuet

Instructions
1.-Cook the empanadas, and add them inside the plantains.
2.-Wait till everything is cooked well.
3.-Cut the fuet in small pieces.
4.-Put everything into the baguette.
5.- Enjoy

VQGAN+CLIP neural network
+ ImageNet_16384 dataset

REFLECTIONS AND CONSIDERATIONS

- Failure eg. cuttable beer
- Parameters properties
- Extreme weird results

For instance:

- 1 Beer, cut into cubes
- Drain on both sides of the refrigerator.
- YOWL THE COOKIE: ADD 1/2 cup of cheese.
- 1 1/2 tb Water; Cooked and seasoned
- 6 oz Mayonnaise peeled, finely chopped