

Cocktail Recommendation System

1. Dataset Choice

The chosen dataset comprises an extensive collection of cocktail recipes, including ingredients, preparation methods, and associated tags (e.g., sweet, sour, tropical).

2. Methodology

Data Preprocessing: The key information of the dataset are the ingredients, basic taste, measurements (which will probably be used for a weighted average) and recipe descriptions. Preprocessing will involve cleaning the data, normalizing ingredient names, and encoding categorical variables to facilitate analysis.

Machine Learning Model: The project aims to recommend cocktails based on user preferences or ingredient availability. Two models were considered: K-Nearest Neighbors (KNN) for its simplicity and effectiveness in recommendation systems, and Neural Networks for their ability to handle complex patterns and relationships within data. The final choice will depend on initial model performance and complexity considerations.

3. Application

I hope to integrate my model in a website. I hope to have a checklist for the bartender (me), to check all available ingredients and filter out cocktails based on availabilities. I also want a text input by the customer where he can input what cocktail he likes and get recommendations or input a list of ingredients or flavors and get recommendations. The output is a list of possible recommendations with the recipe.

Advanced features may include image submission for ingredient and ultimately cocktail recognition.

