

Data Mining

Proposal
Find My Protein

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9/23/2019



Find My Protein

Introduction

This is a platform where users will be able to search for food and different nutrients contained in them. Every search result will return various information necessary for maintaining a healthy diet. The project will be developed in three phases:

- 1) Search feature: The **Phase I** of the project will have the search feature for textual queries and will return results with nutritional values for that food item.
- 2) Classifier: **Phase II** will largely be about using the available data the classifier will classify food as high in protein diet, sugary diet, high carb diet, high fat diet etc.
- 3) Image Recognition: Image recognition feature will be implemented in the **Phase III** and will assist in captioning images for the available food related images. This feature will help make the searches more informative by returning the pictures for the search queries.

Significance of this project


Most of the people now days are concerned about their diet. And they are looking for ways to maintain and track their food. This app will give them a platform to search for information related to the food, also the protein, carb, fat, sugar and so on constitutes of food will be displayed, which will help users make decisions and also to keep track of the consumption. The classifier will help user tell them percentage values of their food recipes. By being able to look for nutritional values of home cooked food, users are highly encouraged to eat home cooked and healthy food.

Prospects


The described feature can be integrated with workout, diet planning, hospital, school etc. applications. Also, collaborative filtering and other filtering can be implemented to develop it into a food recommender application.

Search Implementation

Food with protein



EGGS
Protein: 8g
Carbs: 1g
Fat: 0.4g
Sugar: 0.2g



Chicken
Protein: 20g
Fat: 7g
Carbs: 5g
Sugar: 2g

Classifier



Image Captioning



Two person playing soccer



A child eating food