PERSONAL EXPENSE TRACKER

Top 3 ideas - Problem statements

1. Image-based Calorie Content Estimation

We make use of daily food images captured and stored by multiple users in a public Web service called Food Log. The images are taken without any control or markers. We build a dictionary dataset of maximum images contained in Food Log the calorie content of which have been estimated by experts in nutrition.

2. Personalized Virtual Nutrition Coach

we propose a voice-based Artificial Intelligence-powered virtual assistant to help peoples to manage their daily diet, and to learn food and nutrition-related knowledge. Voice is the most natural communication modality and it is easy to use without any technical background. In addition, the communication and recommendation provided by the system are personalized based on each user's physical, social, and cultural profile. Therefore, it would be easy to be accepted by the target audience.

3. Nutritional Ingredients in Food for Disease Analysis:

We profoundly analysed the relationship between nutritional ingredients and diseases by using data mining methods. We used noise intensity and information entropy to find out which nutritional ingredients can exert positive effects on diseases. we proposed an improved algorithm named CVNDA_Red based on rough sets to select the corresponding core ingredients from the positive nutritional ingredients. Data mining improves the performance compared with the traditional statistical approach, our work can identify correctly the first two or three nutritional ingredients in food that can benefit the rehabilitation of those diseases.