Food Calorie Estimator Requirements

Project Overview

The "Food Calorie Estimator" is a simple and practical tool designed to help users quickly obtain calorie information by uploading food images. This tool combines image recognition technology with a preset calorie database to provide users with instant dietary nutrition references.

Target Users

- College students: Nutritional reference for campus fast food choices
- Fitness enthusiasts: Tracking daily calorie intake
- Weight loss groups: Auxiliary tool for controlling calorie intake
- General users: Those wanting to learn about the calorie content of everyday foods

Functional Description

1. **Image Upload**: Users can upload food images through an interface (supporting JPG/PNG formats)
2. **Food Recognition**: The system automatically identifies food types in images.
3. **Calorie Estimation**: Based on recognition results, queries and displays corresponding calorie values from a preset database
4. **Result Display**: Clearly shows the identified food name, estimated calorie value, and simple portion suggestions on the interface

Implementation Goals

Build a responsive, user-friendly application that identifies common foods and provides reasonable calorie estimates. The tool will be developed using Python language with the user interface, ensuring simple and intuitive operation suitable for daily quick use. This project aims to help users improve dietary health awareness and provide references for dietary decisions.

Hints you can consider:

Integrating Multimodal AI into Your Food Calorie Estimator

Our University GenAI platform offer multimodal capabilities that can recognize objects in images - including foods! Here's how you can integrate it into your project:

You can find the calorie information from the below link:

US Department of Agriculture Food Composition Database

Common food packaging nutritional information

Nutritional websites and apps (with proper citation)