Food Detector AI Website

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CS. 64

Abstract

For this project, our goal is to create a useful application for tracking meals. We designed a website tool to track users' diet and provide helpful insights through interactive data visualization and interface to enter in meals by utilizing artificial intelligence identification.

Background

Our work supports an OSU researcher team developing computer vision models that are able to identify and label food item(s) in an image. To demonstrate this system, our team was tasked to design an interactive and intelligent meal tracking website.

Data

The Food Detector AI has been trained to identify a large number of foods (n=255). This intelligent system identifies food image in an image and labels each.

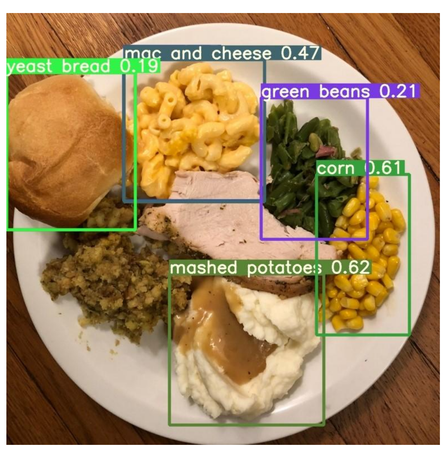

Figure 1: Images of item labeled by the AI

Methods

For the website design, we chose React as our front-end connecting to an SQL database on the back-end.

We accomplished the following objectives:

- A user login/register system for security
- A dashboard to show data visualization
- A well-organised database to store data

Results

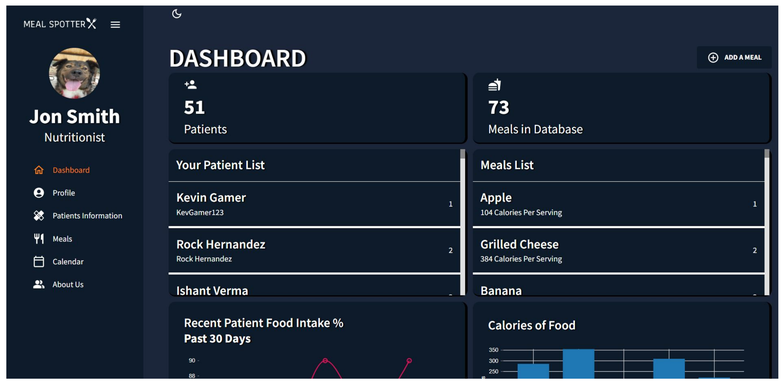

Figure 2: Preview of our website

The website has been developed and is currently available for use to register new users, display their personal information, and track their meal records. The database system efficiently logs all the necessary information provided by the users.

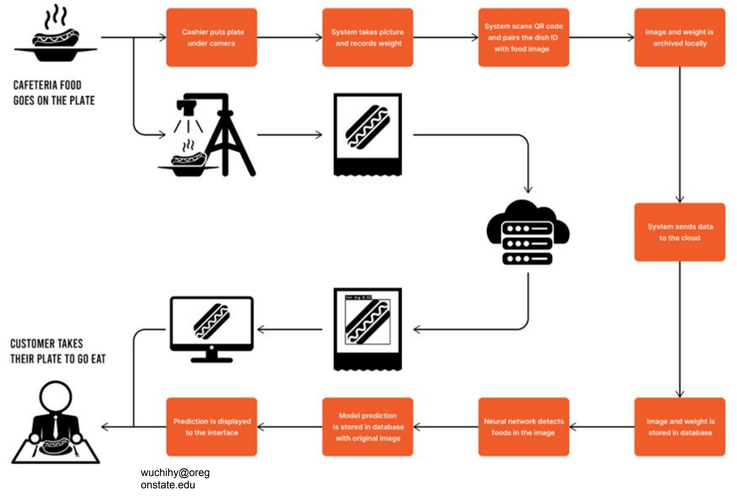

Figure 3: Overview of food waste identification process

Discussion

The current Food Detector AI is trained to identify which foods are present in an image. This work explores a custom web interface to demonstrate this work and to provide interactive data visualizations and measurements, such as the number of calories consumed and identify the amount of edible food wasted after a meal.

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