## LLM Project Presentation:

# MakeEat

Truly Match, Every Time





# What's MakeEat?



MakeEat is a smart recipe generation system that creates personalized recipes based on the user's preferences and the ingredients purchased, identified through receipt image analysis using Al and ML technologies.





### **Dev Direction - Enhance Accuracy Through Prompting**



Shrimp Pasta ~800 kcal

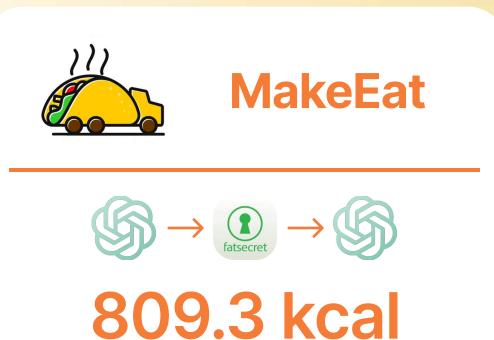
Src: Nutritionix



some app

350 kcal (ACC: 43.75%)

Acc: +55.125%



(ACC: 98.88%)

#### 3-Stage Prompt for Accurate Nutrition Calculation

- 1. Generate general information about the recipe, excluding nutritional details.
- 2. Send ingredient-related information to FatSecret's API to receive nutritional data for each ingredient.
- 3. Send the retrieved nutritional data along with the required quantities of each ingredient to GPT, allowing it to estimate accurate nutritional values.

### Dev Direction - Efficient Image Preprocessing







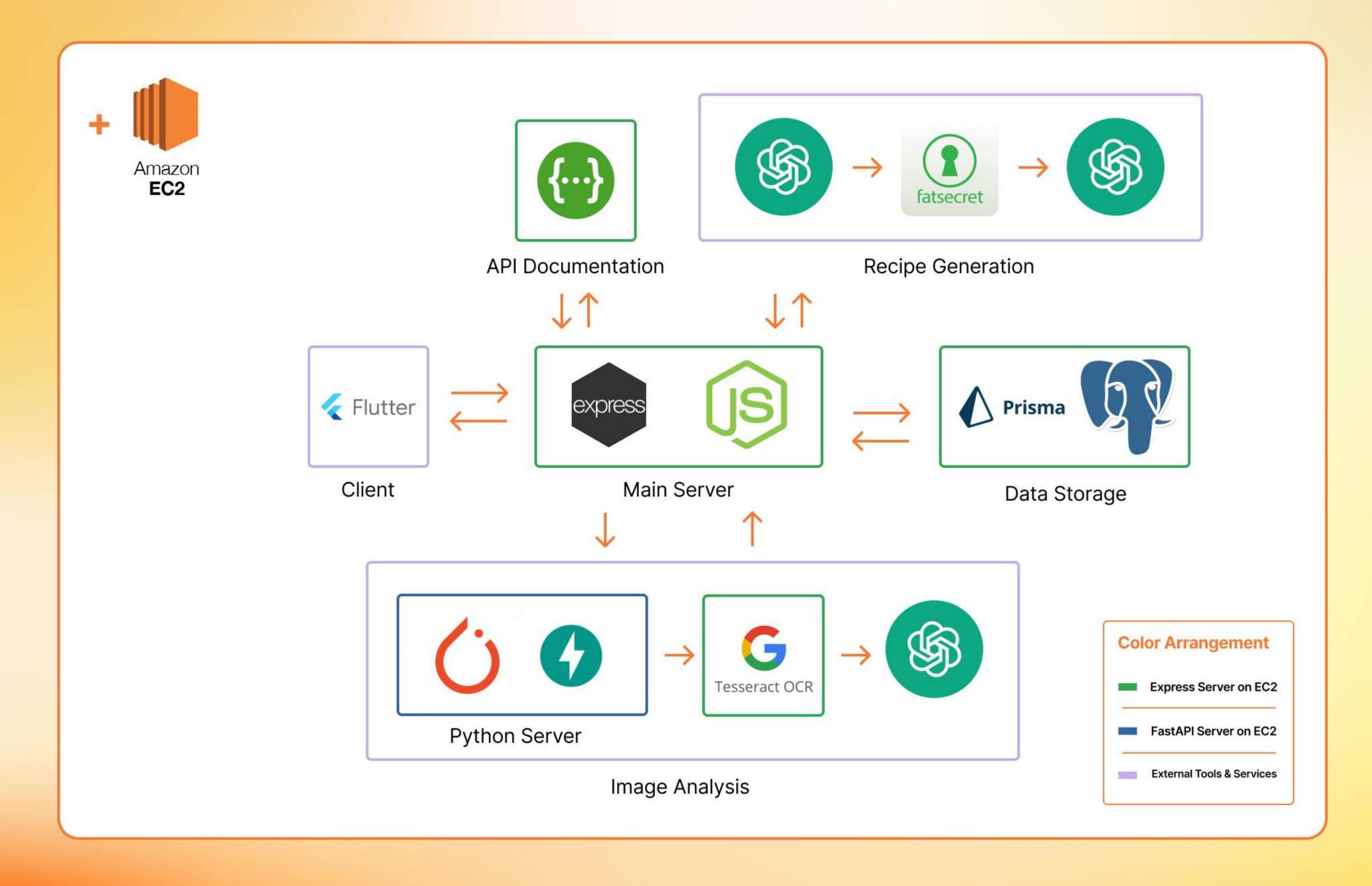




#### 3-Stage Hybrid Approach for Receipt Image OCR

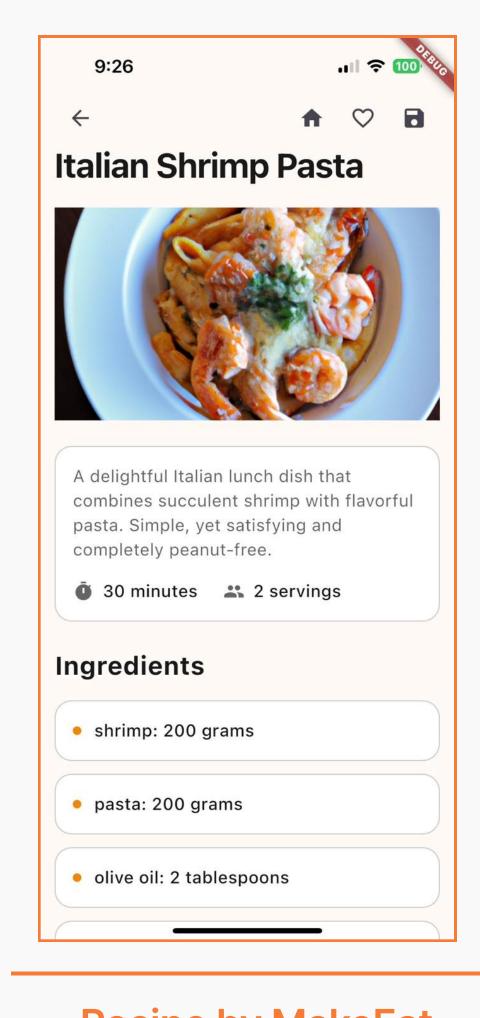
- 1. Precise text area detection using PyTorch-based EasyOCR on FastAPI server.
- 2. Text analysis of detected areas using Tesseract
- 3. Ingredient information extraction using GPT-4

## System Architecture Diagram



# DEMO

#### Cook with MakeEat!











MakeEat makes recipes you'll love to cook and eat!