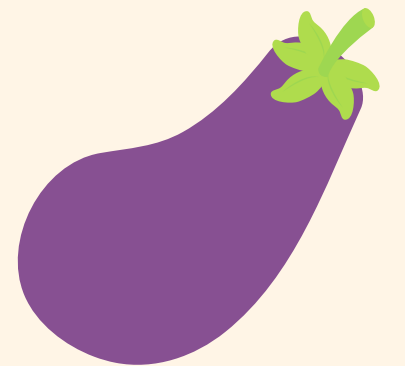




SMART FOODIE

A PROJECT BY SAMER
BASLAN, TRIPURA
CHANDANA GAYATRI GORLA,
ROHAN KUMAR, AND JIMMY
LIANG.

SAN JOSE STATE
UNIVERSITY, COLLEGE OF
ENGINEERING.



Today's Discussion

A better way to healthy eating, Smart Foodie project overview.



Introduction	03
Project Overview	04
Machine Learning Models	07
System Architecture	11
Demo	13
Questions	15

Who we are



Samer Baslan

San Jose State University



**Tripura Chandana Gayatri
Gorla**

San Jose State University



Rohan Kumar

San Jose State University



Jimmy Liang

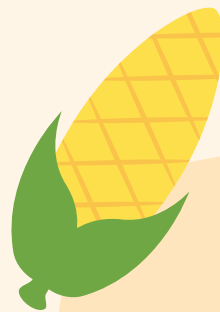
San Jose State University

What's the need?

Healthy eating is an important part of a healthy life. As Anthelme Brillat-Savarin puts it in his book *The Physiology of Taste*, you are what you eat. Logging what food you're eating accurately and consistently is the best way to start and enforce a healthy lifestyle but is often the most difficult part.

“

It takes too long to log everything I'm eating , I just don't have the time!

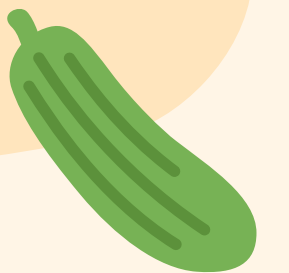


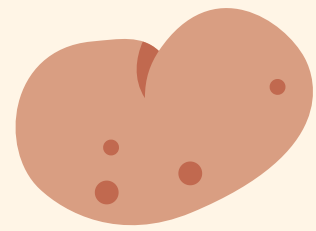
“

Even if I spend the time, I may not be logging the right food!

“

Am I sure that the nutrition information is correct?





How we solved it

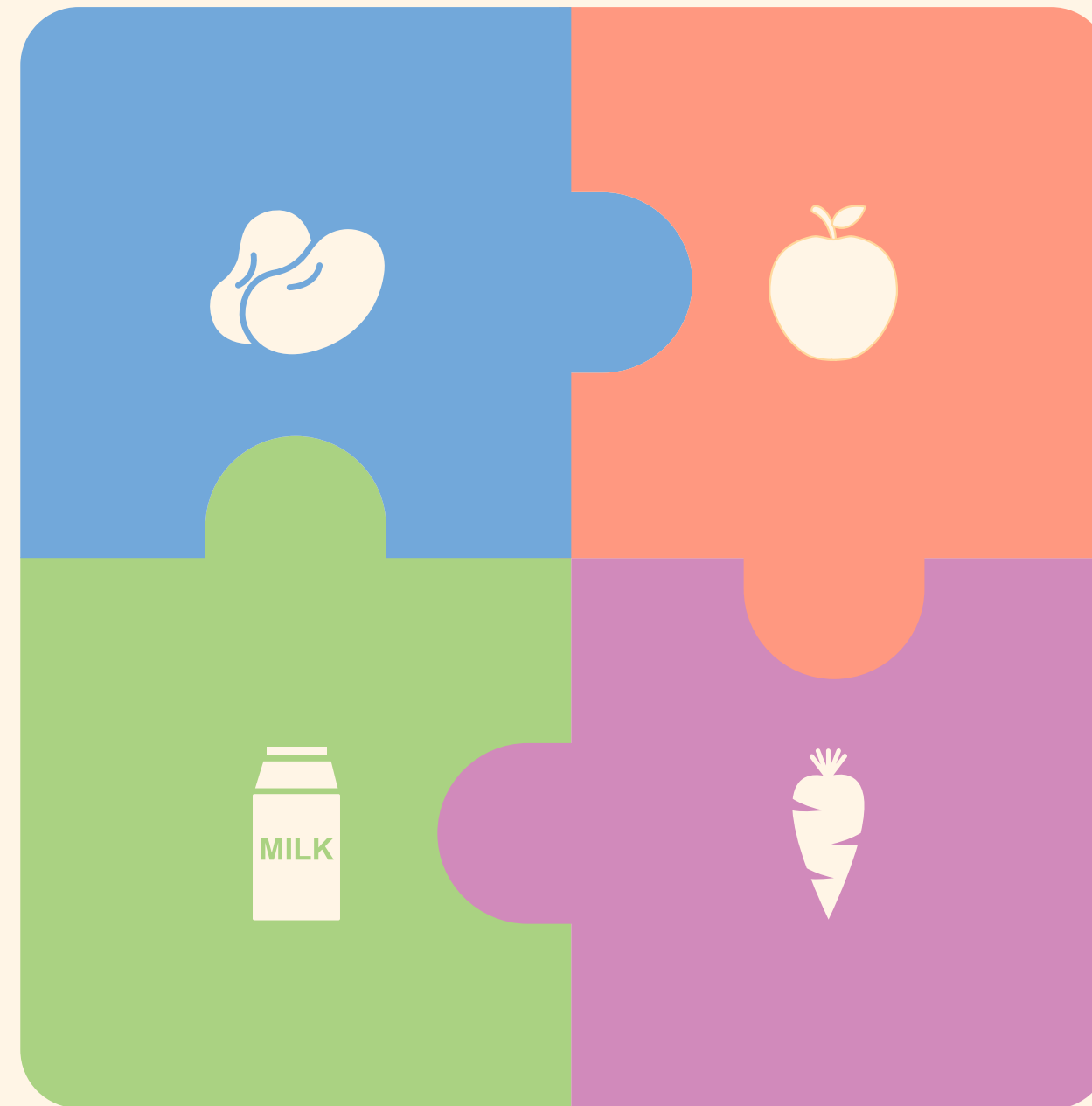


Artificial Intelligence

State-of-the-art Computer Vision Models

Flexible Design

Componentized design to maximize architecture flexibility.

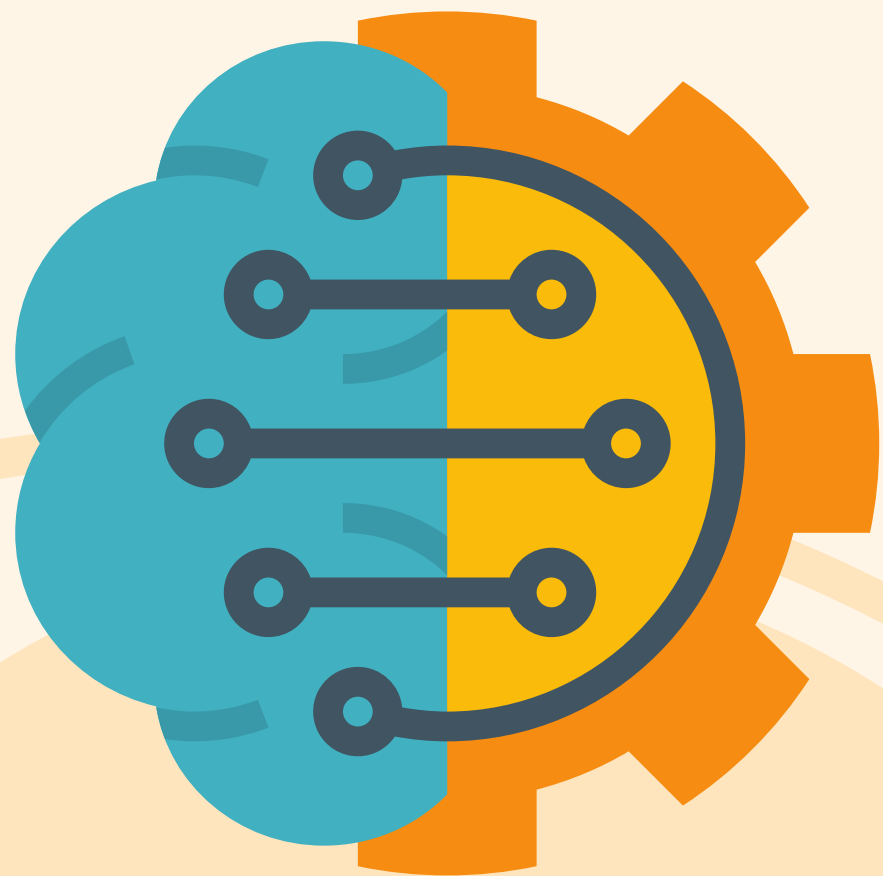


Nutrition Database

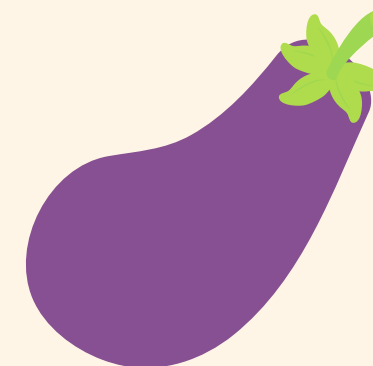
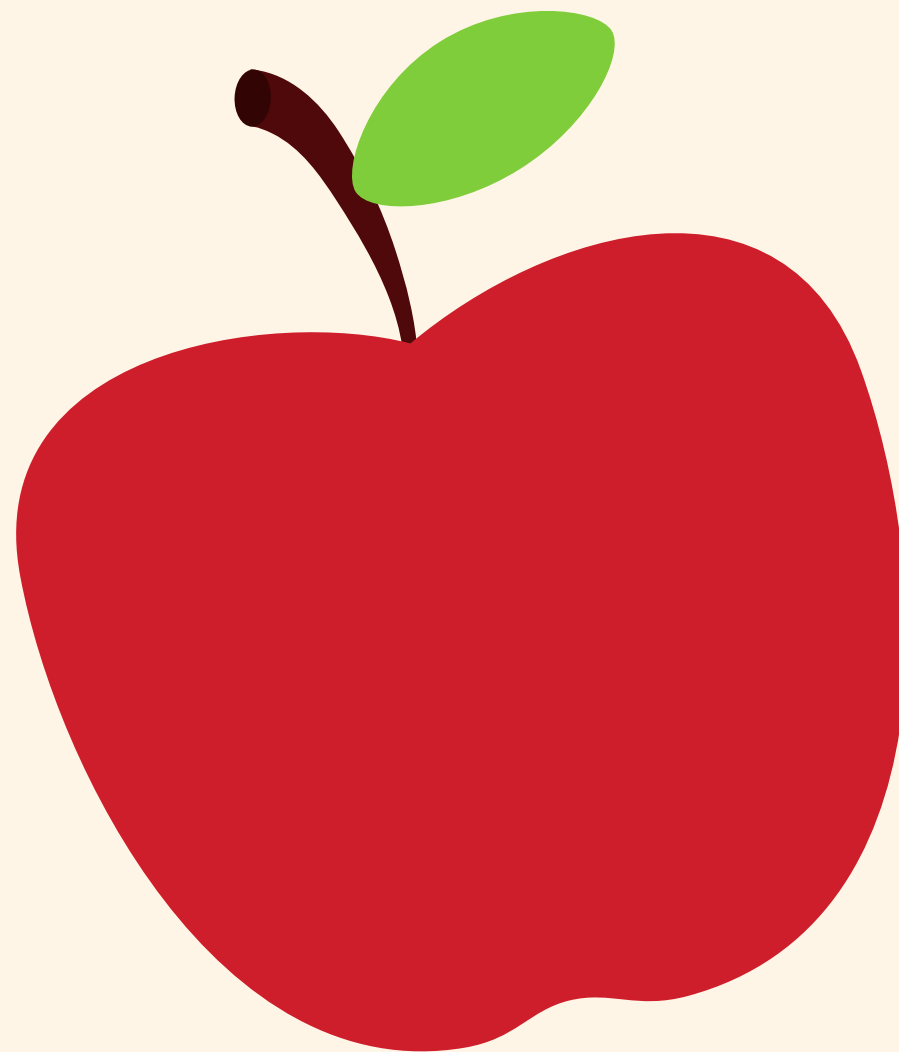
In-depth nutrition data gathered from multiple sources

Simple Interface

Clean design that is easy to use



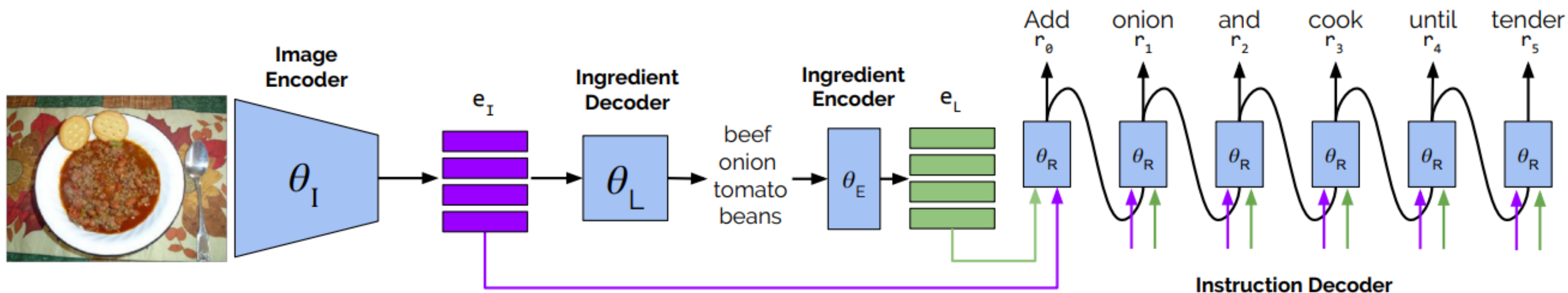
SMART FOODIE



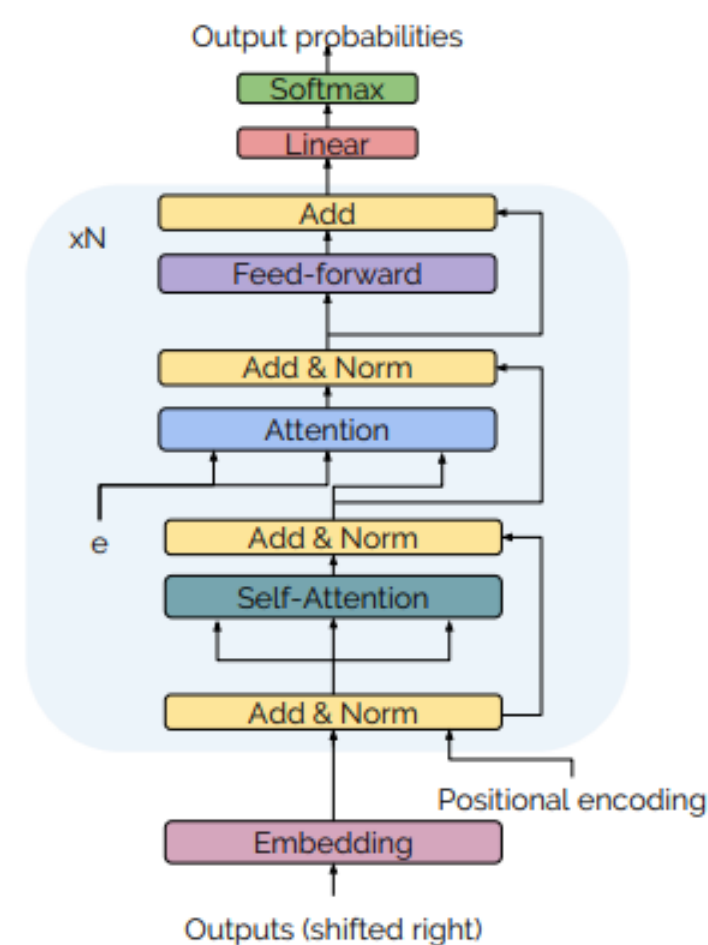
ML Model



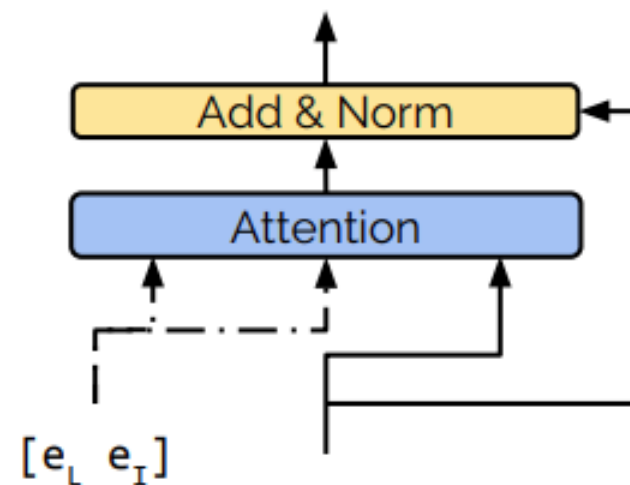
Recipe generation model



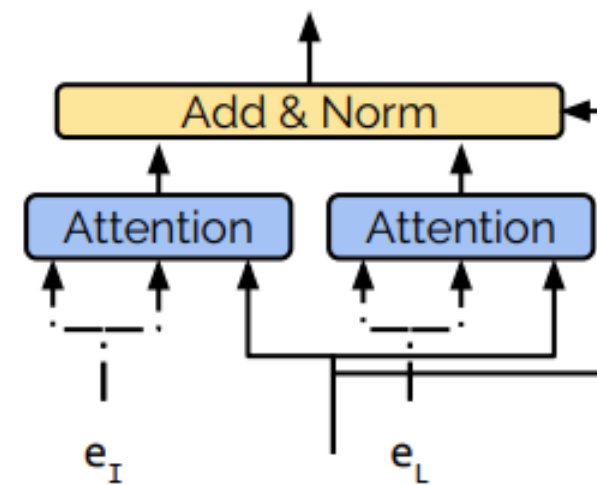
Attention strategies for the instruction decoder



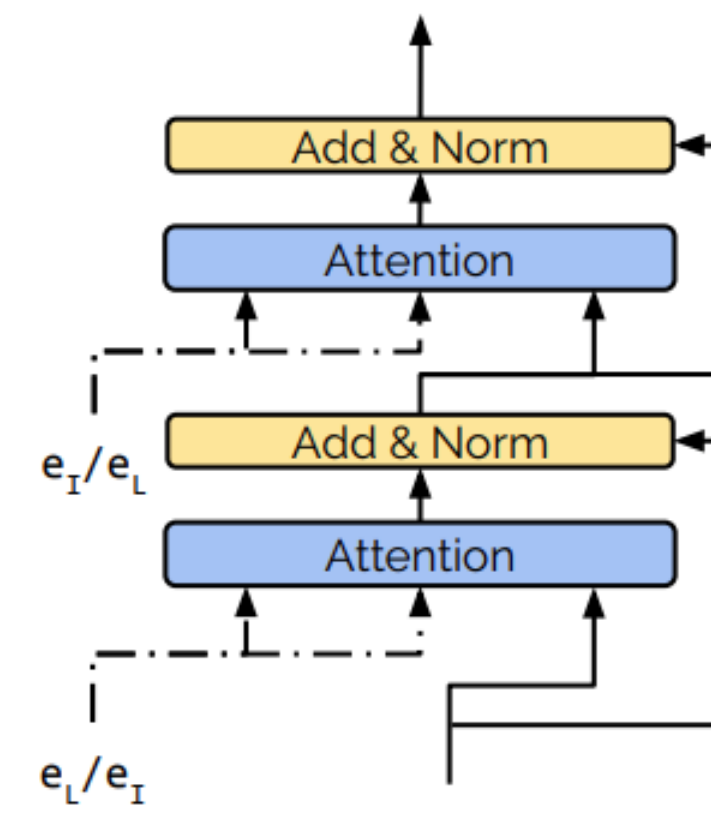
(a) Transformer model [50]



(b) Concatenated

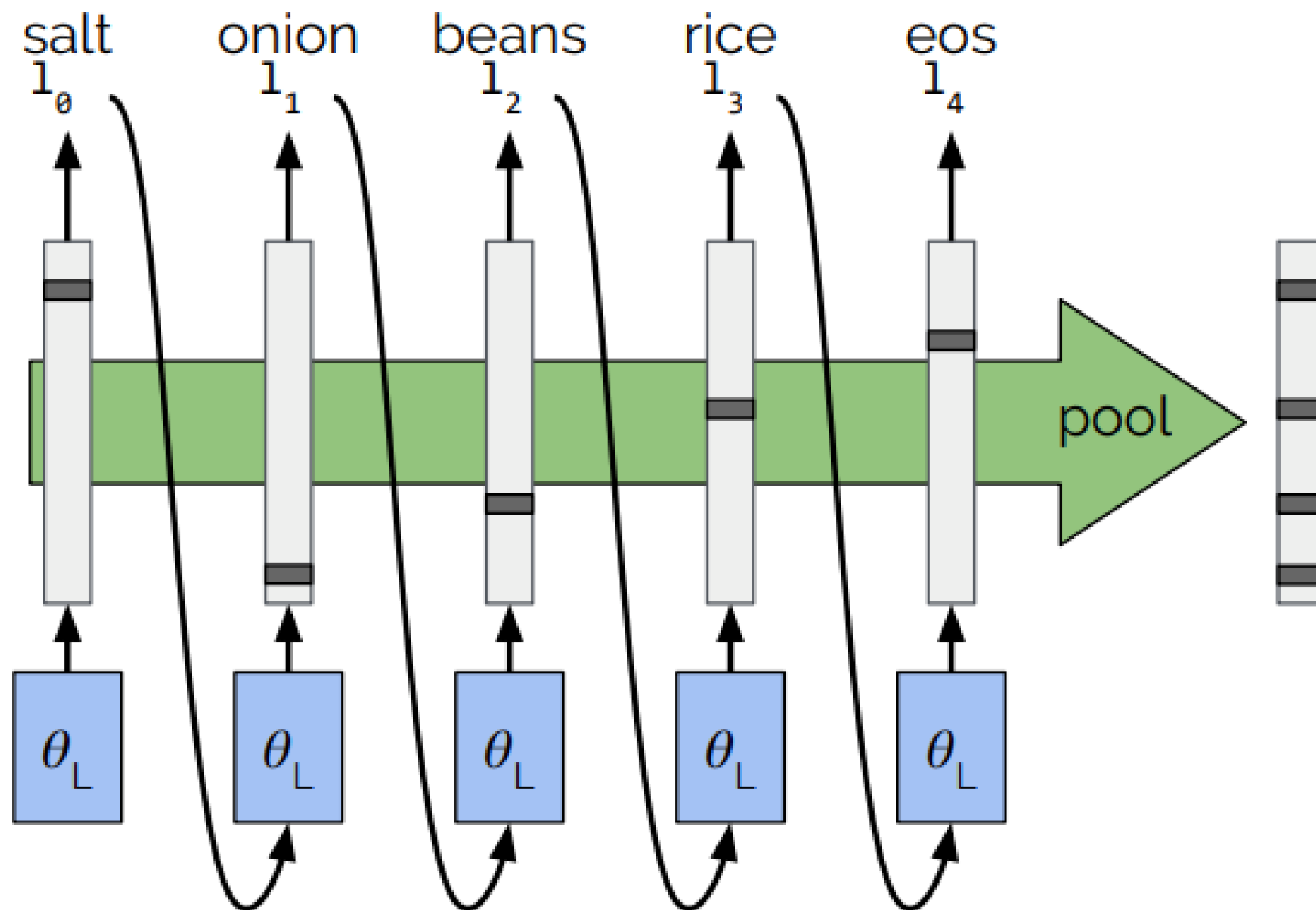


(c) Independent

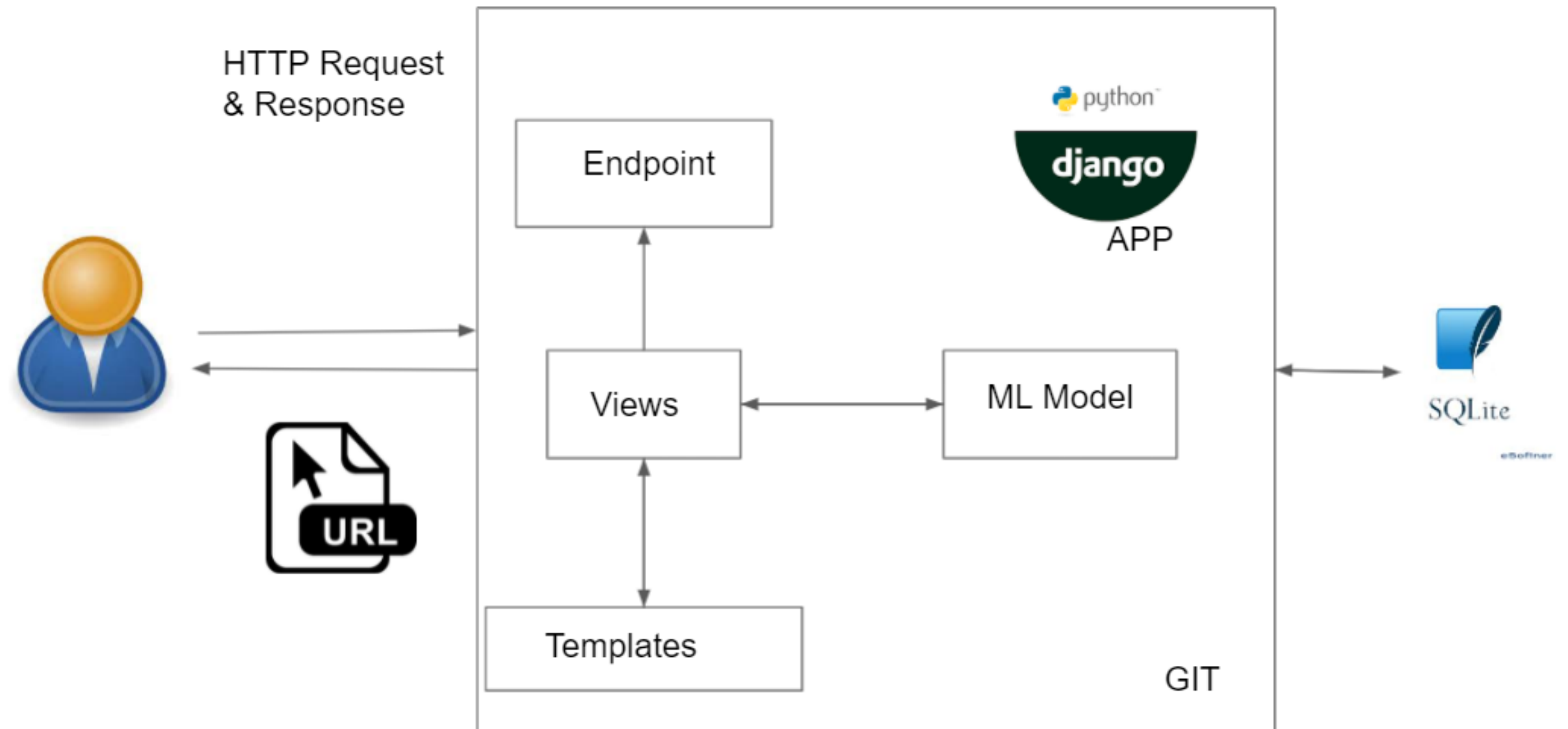


(d) Sequential

Set Transformer



System Architecture



System Architecture

Web-Framework - Django

Inverse Cooking Pytorch Model - Integration

SQLite 3

Stores the user login credentials and data

Stores the nutritional information and the generated recipe.

GIT



Demo





SMART FOODIE

A BETTER WAY TO HEALTHY LIVING