

Date	03 SEPTEMBER 2022
Team ID	PNT2022TMID07688
Project name	Project - AI-powered Nutrition Analyzer for Fitness Enthusiasts

Project Objectives

- Nutritional intake is fundamental to human growth and health, and the intake of different types of nutrients and micronutrients can affect health.
- The content of the diet affects the occurrence of disease, with the incidence of many diseases increasing each year while the age group at which they occur is gradually decreasing.
- Methods: An artificial intelligence model for precision nutritional analysis allows the user to enter the name and serving size of a dish to assess a total of 24 nutrients.
- A total of two AI models, including semantic and nutritional analysis models, were integrated into the Precision Nutritional Analysis.
- A total of five different algorithms were used to identify the most similar recipes and to determine differences in text using cosine similarities.
- The model structure consists of a digital data semantic analysis model, an AI precision nutrient analysis model, a database of 1590 recipes, and 7869 ingredients from common Taiwanese recipe databases,
- This study proposed an Intelligence Precision Nutrient Analysis Model based on a digital data collection framework, where the nutrient intake was analyzed by entering dietary recall data. The AI model can be used as a reference for nutrition surveys and personal nutrition analysis.