Literature Survey

Team id:	PNT2022TMID17560
Project Name:	AI-Powered Nutrition Analyzer For Fitness Enthusiasts
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Paper I

Artificial Intelligence in Nutrients Science Research

Abstract:

Artificial intelligence (AI) as a branch of computer science, the purpose of which is to imitate thought processes, learning abilities and knowledge management, finds more and more applications in experimental and clinical medicine. In recent decades, there has been an expansion of AI applications in biomedical sciences. The possibilities of artificial intelligence in the field of medical diagnostics, risk prediction and support of therapeutic techniques are growing rapidly. The aim of the article is to analyze the current use of AI in nutrients science research. The literature review was conducted in PubMed.

Advantages:

Nowadays new dietary assessment and nutrition analysis tools enable more opportunities to help people understand their daily eating habits, exploring nutrition patterns and maintain a healthy diet. Nutritional analysis is the process of determining the nutritional content of food.

Disadvantages:

Literature Survey

❖ High blood pressure
❖ High cholesterol
❖ Heart disease and stroke

Paper II

A New Deep Learning-based Food Recognition System for Dietary Assessment on An Edge Computing Service Infrastructure.

Abstract:

Literature has indicated that accurate dietary assessment is very important for assessing the effectiveness of weight loss interventions. However, most of the existing dietary assessment methods rely on memory. With the help of pervasive mobile devices and rich cloud services, it is now possible to develop new computer-aided food recognition system for accurate dietary assessment. However, enabling this future Internet of Things-based dietary assessment imposes several fundamental challenges on algorithm development and system design. In this paper, we set to address these issues from the following two aspects.

Advantages:

A balanced diet is one that gives your body the nutrients it needs to function correctly.Calories in the food is the measure of amount of energy store in that food. Our body use calories for basically everything like breathing, walking, running etc person needs 2000 .

Disadvantages:

➢ Sleep disturbances
➢ Mood swings
➢ Decreased physical performance
➢ Lack of mental focus
➢ Extreme thirst