AI-powered Nutrition Analyzer for Fitness Enthusiasts

LITERATURE SURVEY

TITLE	AUTHOR	YEAR	DESCRIPTION
Artificial Intelligence in Nutrients Science Research: A Review	Magdalena Suchodolska, Jarosław Sak	2021	The possibilities of artificial intelligence in the field of medicine diagnostics, risk prediction and support for therapeutic techniques are growing rapidly. These papers were divided into three areas: AI in biomedical nutrients research, AI in clinical nutrients researches and AI in nutritional epidemiology. It was found to be Artificial Neural network (ANN) methodology was dominant in the food composition research group study and production of nutrients. The development of diet systems using AI technology can lead to the creation of a global network that will be able to both actively support and monitor personalized nutrient supply.
A New Deep Learning-based Food Recognition System for Dietary Assessment on An Edge Computing Service Infrastructure	Chang Liu, Yu Cao, Yan Luo	2016	We decided to solve these problems from the following two aspects: develop novel visual food recognition algorithms based on deep learning to achieve best-in-class recognition accuracy; design a food recognition system using the paradigm of edge

			computing based computing system to overcome some inherent problems of the traditional mobile cloud computing paradigm, such as unacceptable system latency and low battery capacity lifetime of mobile devices. We have conducted extensive experiments with real data. Our results showed that the proposed system achieved three goals: outperform existing work in terms of food recognition accuracy; reduction a response time that is equivalent to the minimum of existing approaches; and reducing energy consumption that is approaching to the minimum of the current state of the art.
Artificial Intelligence in Nutrients Science Research: A Review	Jarosław Sak and Magdalena	2021	The aim of the article is to analyze the current use of AI in nutrients science research. AI plays a major role in Dietary Assessment. Lu et al., in a recent publication, offered goFOODTM as a dietary assessment system based on AI. It can estimate the calorie and macronutrient content of a meal, on the sole basis of food images captured by a smartphone. AI in Physical Monitoring Systems plays an important.In a publication

			conducted Ramyaa et al. tried to phenotype women based on dietary macronutrients and physical activity using machine learning, support vector machine (SVM), neural network and k-nearest neighbors (kNN) algorithms.