

AI - POWERED NUTRITION ANALYZER FOR FITNESS ENTHUSIASTS LITERATURE SURVEY

LITERATURE 1:

Title : Precision Nutrition

Author : Daniel Kirk, Cagatay Catal, Bedir Tekinerdogan.

Publications : Elsevier

Year : April 2021

Methodology:

- Machine learning is applied for the precision nutrition related works.
- The uses of Machine learning to generate nutritional advices as a precision nutrition output.

Advantage:

- The utilizing imaging for tracking food intake is attractive because smartphones can be used to take picture of food and reducing the burden of manual entry.

Disadvantage :

- Precision nutrition do not take into account gender, medicine use, sleep quality and other variables. Whilst it is infeasible to incorporate every possible contribution variables into a Precision nutrition model, some of the information represents basic personal information that can have a significant effect at reducing the error in personal nutrition outcome.

LITERATURE 2:

Title : Promotion of healthy nutrition and physical lifestyle of teenagers

Author : Maria Vanessa Villasans, Jvan Migual Pires, Francisco Florez, Revualta

Publications : Journal of personalized medicine

Year : March 2020

Methodology:

- Implemented the mobile applications to help young peoples to choose healthylifestyle.

Advantage:

- The use of mobile applications mainly focused on health nutrition and physical fitness.

Disadvantage :

- The use of gamification increased the use of these type of mobile application.

LITERATURE 3:

Title : Fundamentals of food, nutrition and diet therapy

Author : Sumati R.Mudambi,M.V.Rajagopal

Publications : New Age International

Year : July 2021

Methodology:

- Dietary intake can be assessed by objective observation using a duplicate diet approach or food consumption record by a trained research staff.

Advantage:

- Weight loss or weight gain.
- Avoid nutrient deficiency and decrease stress and chronic fatigue.
- Keep skin, teeth healthy

Disadvantage :

- A poor diet is an important risk factor in coronary heart disease.

LITERATURE 4:

Title : Artificial Intelligence in nutrition and science

Author : Jaroslaw Sak, Magdalena Suchodalska

Publications : Multidisciplinary Digital Publishing Institute

Year : January 2021

Methodology:

- Deep learning algorithms are prevalent in a group of research works on clinical nutrients intake.
- The development of dietary system using AI technology may lead to the creation of the global network that will be able to both actively support and monitor the best personalized supply nutrients.

Advantage:

- AI drives down the time to perform the task
- AI arguments the capabilities of differently abled individuals

Disadvantage :

- High cost and no creativity
- Make human lazy and no improvement

LITERATURE 5:

Title : Analysis of mobile applications reporting on nutritional receipes

Author : Jose Huamani-Cahwana, Michael Cabonillas-Carbonell

Publications : EDP science publications

Year : 2019

Methodology:

- The type of study used in the systemic review of the scientific literature with the prism methodology, according to a systematic review is a concise summary of the information provided by other researchers regarding a topic of social interest

Advantage:

- App technology allows patients to more easily monitor their caloric intake and dietary patterns to aid in weight and disease management.

Disadvantage :

- Relatively high respondent burden may affect foods or quantities that are selected.
- Patients tend to record less diligently as the duration increases.

LITERATURE 6:

Title : ISSN Exercise and sport nutrition review

Author : Richard B Kreider, Jose Antonio, Antonu L. Almada

Publications : Journal of the international society of sports nutrition

Year : 15 May 2018

Methodology:

- Sport nutrition professionals need to know how to evaluate the scientific merits of articles and advertisements about exercise and nutrition products. So they can separate marketing hype from scientifically base training and nutrition practices

Advantage:

- Numerous nutritional and herbal products are marketed to promote weightgain, weight loss and/or improve performance.
- Prudent training, maintaining an energy balance and nutrients dense diet, proper timing of nutrients intake and training adaptations

Disadvantage :

- Factors includes poor nutrition knowledge, dietary extreme , poor practical skills in choosing or preparing meals and reduced access to food due to a busy lifestyle and frequent travel.

LITERATURE 7:

Title : Consumer preference for nutrition and health claims

Author : Marija klopčič, Polona Sloan, Karman Erjavec

Publications : University of Ljubljana

Year : 1 December 2019

Methodology:

- The food industry and retailers have been offering ever more food products labelled with nutrition and health claims (NHCS).

Advantage:

- For healthy heart and cholesterol lowering.
- A source of dietary fiber.

Disadvantage :

- In short term , poor nutrition can contribute to stress ,tiredness and our capacity to work.