

## **1. Author & year of publication**

Thomas Theodoridis, Vassilios Solachidis, Kosmas Dimitropoulos, Lazaros Gymnopoulos, Petros Daras (2020).

## **JOURNAL**

petra

## **TITLE OF THE PAPER**

A Survey on AI Nutrition Recommender Systems

## **METHODS**

Convolutional neural network (CNN), support vector machine (SVM)

## **ADVANTAGES**

AI algorithms may help better understand and predict the complex and non-linear interactions between nutrition-related data and health outcomes

## **LIMITATION**

Some limitations of nutrition screening include not validating tools for specific patient populations, inaccurate information, changes to a patient's condition during hospitalization, and the use of invalidated laboratory values.

## **2. AUTHOR & YEAR OF PUBLICATION**

Jinti Roy and Chandrama Baruah (2020)

Department of Food, Nutrition and Dietetics, Assam down town University, Guwahati, Assam, India

## **JOURNAL**

ISSN

## **TITLE OF THE PAPER**

Nutritional assistance during exercise or physical

## **METHODS**

Support vector machines (SVMs)

## **ADVANTAGES**

Nutrient consumption is to switch fluid losses and supply carbohydrate for the up keeper of blood glucose levels.

## **LIMITATION**

The accuracy of diet analysis is limited by poor record keeping and inaccurate reporting of food intake.

### **3.AUTHOR & YEAR OF PUBLICATION**

S. K. UmaMaheswaran, Gaganpreet Kaur, A. Pankajam, A. Firos, Piyush Vashistha, Vikas Tripathi and Hussien Sobahi Mohammed. (2021)

### **JOURNAL**

Journal of food quality.

### **TITLE OF THE PAPER**

Artificial intelligence in food quality improvement

### **METHODS**

“Machine Learning (ML),” “Neural Language Processing (NLP),” “Rule-Based Expert Systems (RESS),” “Deep Learning (DL),”

### **ADVANTAGES**

Advantages of artificial intelligence in the food business include enhanced customer accessibility, improved technological innovation, readily accessible client requirements and comments, strategic advantage through unique products, and plenty others.

### **LIMITATIONS**

During online counselling, the security and data protection level can be enhanced to increase the number of satisfied patients.

### **4.AUTHOR & YEAR OF PUBLICATION**

Daniel Kirk, Cagatay Catal ,Bedir Tekinerdogan(2021)

### **JOURNAL**

Elsevier

### **TITLE OF THE PAPER**

Precision Nutrition

### **METHODS**

ML, DL, ANN

### **ADVANTAGES**

Precision medicine seeks to improve the personalized treatment of diseases, and precision nutrition is specific to dietary intake.

### **LIMITATIONS**

The field of precision nutrition is not yet ready for prime time because of various challenges—a lack of well-designed clinical trials showing consistent results, and expensive technologies needed to collect and study an individual's DNA, gut microbiome, and response to food intake.

#### **5.AUTHOR & YEAR OF PUBLICATION**

Daniela Braconi , Vittoria Cicaloni , Ottavia Spiga , Annalisa Santucci(2020)

#### **JOURNAL**

Elsevier

#### **TITLE OF THE PAPER**

Personalized nutrition using AI.

#### **METHODS**

Big data and Machine Learning

#### **ADVANTAGES**

Personalized nutrition makes healthy dietary suggestions more relevant to the daily life of the individual. Suggested changes to dietary patterns are therefore more effective and lasting.

#### **LIMITATIONS**

Some limitations of nutrition screening include not validating tools for specific patient populations, inaccurate information, changes to a patient's condition during hospitalization, and the use of invalidated laboratory values.

#### **6.AUTHOR & YEAR OF PUBLICATION**

Berkeley N. Limketkai, Kasuen Mauldin, Natalie Manitus, Laleh Jalilian, Bradley R. Salonen(2021)

#### **JOURNAL**

Springer.

#### **TITLE OF THE PAPER**

Use of Digital Technology in Clinical Nutrition.

#### **METHODS**

AI and Machine Learning.

#### **ADVANTAGES**

Mobile applications and wearable technologies have since facilitated longitudinal, real-time, and multi-type data collection, while advances in computing power and refinements in machine learning algorithms have permitted high-dimensional analyses of large datasets to generate meaningful observations.

## **LIMITATIONS**

As the application of cutting-edge digital technologies lags in nutrition relative to the medical or other consumer-oriented industries, disruptive technologies in nutrition are still forthcoming but near.

## **7.AUTHOR & YEAR OF PUBLICATION**

Stefania Russo and Stefano Bonassi(2022).

## **JOURNAL**

National library of medicine

## **TITLE OF THE PAPER**

Prospects and Pitfalls of Machine Learning in Nutritional Epidemiology.

## **METHODS**

ML, CNN, AI

## **ADVANTAGES**

Machine learning can process large amounts of patient data beyond the scope of human capability, then reliably convert that analysis into medical insights that help clinicians plan and deliver care

## **LIMITATIONS**

Not only could the data be unintentionally flawed, there is also the risk that it could be intentionally manipulated. Either the data or the neural networks that “teach” the machine learning algorithms could be programmed to introduce bias or lead clinicians to false conclusion.

## **8.AUTHOR & YEAR OF PUBLICATION**

Kirk, D., Catal, C., Tekinerdogan, B(2022)

## **JOURNAL**

ISSN

## **TITLE OF THE PAPER**

Precision nutrition

## **METHODS**

Unsupervised method,ANN

## **ADVANTAGES**

Nutrition personalization can improve the health of individuals to a greater degree than generic, population-level advice.It is used to deliver nutritional advice

## **LIMITATIONS**

Anomaly detection algorithms attempt to respond to this issue. Anomaly detection has its most common application in detection of fraudulent bank transactions.

## **9.AUTHOR AND YEAR OF PUBLICATION**

Ahmed Raza and nita dalmiya(2022)

## **JOURNAL**

Ncd

## **TITLE OF THE PAPER**

Nutrition systems of children

## **METHODS**

Innocenti Framework

## **ADVANTAGES**

The importance of continuously shaping food systems to deliver nutritious, safe, affordable, and sustainable diets to children and adolescents.

## **LIMITATIONS**

Children and adolescents face multiple burdens of malnutrition. Nutrition systems are critical for improving diets of children and adolescents.

## **10.AUTHOR AND YEAR OF PUBLICATION**

Monika meilis, Marek(2022)

## **JOURNAL**

PICOS

## **TITLE OF THE PAPER**

Improving nutrition in cystic fibrosis

## **METHODS**

RCI, BMI

## **ADVANTAGES**

Maintaining adequate nutritional status. Nutritional plans can improve anthropometric measures.

## **LIMITATIONS**

Pancreatic enzyme replacement is difficult.