AI –POWERED NUTRITION ANALYZER FOR FITNESS ENTHUSIASTS

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LITERATURE SURVEY

S.NO	TITLE & AUTHOR	YEAR & PUBLICATIONS	METHODOLOGY & ALGORITHM	ADVANTAGE	DRAWBACK
1.	Artificial intelligence in food science and nutrition Infomation Technol-gies Institute (ITI) Kosmas Dimitropou los	**April 2019** Published by Oxford University Press on behalf of the International Life Sciences Institute.	AI in areas such as immunityboosting foods, dietary assessment, gut microbiome pro-file analysis, and toxicity prediction of food ingredients.chniques are growing rapidly. They are a type of ML algorithms that requires very little human supervision when training and can crunch huge amounts of data in a short time. As for their application in healthcare, ANNs are used to analyze medical imaging, biochemical studies.	tells exactly what to eat according to the body type. All of this is packaged in a comprehensive nutrition and activity tracker	The AI system may not always make the right decisions, but it will eventually learn from these errors and adjust its decisionmaking processes to improve over time.
2	Artificial Intelligence in Nutrients Science BALAKRISH NA .Y	**JUNE 2022** This article belongs to the Section Nutrition Methodology & Assessment	The possibilities of artificial intelli-gence in the field of medical diagnostics, risk prediction and support of therapeutic.	creation of a global network that will be able to both actively support and monitor the personalized supply of nutrients..	The AI System May Be Buggy At First it can take time to work correctly. This is normal.

			AI algorithms may help better understand and predict the complex and nonlinear interactions between nutritionrelated data and health		
3	AI-Based Dietician Professor, Department of Computer Science, Dayananda Sagar Academy of Technology	**April 2022** International Journal of Creative Research Thoughts (IJCRT	Consulting a dietician is something that everyone cannot afford. Also, consulting a dietician could be time-consuming. An expert system method to recommend a per-sonalized diet plan. AI could significantly improve packaging, increasing shelf life, a combination of the menu by using AI algorithms, and food safety by making a more transparent supply chain management system.	Helps the user to interact better with the system, Provide information to the system as input and take the recommended diet plan as output	Doesn't have acknowledgable dietician Don't value customer time Worst service

4	Virtual Nutritionist using AI International Journal	**June 2019** Blue Eyes Intelligence Engineering and science publication	It will generate the diet plan as well as it also monitor the user health to classify the category of the disease and to create the diet	A user can track his/her progress towards his/her goal from the day he'd started using the application.	High Costs. No creativity. AI is that it cannot learn to think outside the
	of Engineering and Advanced Technology (IJEAT) ISSN: 2249-8958, Volume-8 Issue-5,		plan. It will also reduce the cost of consulting the person nutritionist. Gradient boosting Regression was used to generate the model, as the method non-linear relationships between PGGR and different factors in our dataset.Gradient boosting Regression uses decision trees to classify the data.	Reminders for every meal. Inbuilt personalized customization of meals depending upon one's preferred foods	box.Unemployment Make Humans Lazy. No Ethics. Emotionless. No Improvement

5.		MAY 2022			
	A Computer Vision-based Indian Food Detection and Nutrition Calculation App Durgesh Samariya	DEVELOPERS CORNER	The task of food detection/classification is not easy as it seems. all possible options related to the given Image. For example, if a user uploads a dal image then the Foodify.ai app return all dal's from our nutrition database such as Dal Tadka, Dal Fry, Dal Makhni, etc. AI algorithms can help the food delivery systems to manage the orders accurately. It will reflect the customer's order to two different	Easy to use Highly productive No more man power required	Calculation cannot be accurate Software develop-ment is difficult Image processing can always not be correct

			delivery partners, one who is in the nearby location of the delivery address and the other who is in the nearby location of the restaurant where the customer has ordered the food		

6.	Diet Monitoring and Health Analysis Using Artificial Intelligence AUTHOR: R. Divya Final year Students, Dept of CSE, Velammal Engineering College, Chennai, India(TN) S. Vithiya Lakshmi YEAR :2021		Our food recognition system employs visual sensors to capture food images as the source data. Due to the recent advances of electronics, visual sensors are now available in many Internet-of-Things(IoT) devices, such as smart phones Control of health and well-being. Additionally, AI increases the ability for healthcare professionals to better understand the day-to-day patterns and needs of the people they care for, and with that understanding they are able to provide better feedback, guidance and support for staying healthy.	The diseases can be identified accurately by the classifiers Wearable are used by the user to keep track of the diet.Intake of the food is taken into count and suggestions are provided to improve the health of the user.	By integrating AI with the user data, map its user's nutritional patterns and needs fitness coach is an AI