IDEATION PHASE

LITERATURE SURVEY

Team ID	PNT2022TMID49109
Project Name	AI-powered Nutrition Analyzer for Fitness Enthusiasts

S.NO	AUTHOR	TITLE	YEAR	JOURNAL	FINDINGS	ADVANTAGES	DISADVANTAGES
1.	V. Ramkumar, S.Priyanga Devi , K. Laxmi Priya, M. Kavya Dharshani	Android Based Monitoring System with Diet and Calorie Tracker	2022	International Journal of Engineering Research & Technology (IJERT)	An algorithm which they used: Naïve bayes classifier, Logistic regression and Random forest	The proposed system will use digitalized application which will be beneficial for both embers and admin	Lack of appropriate regulations and some political, ethical, and financial transformations
2.	V Balaji Kasyap, N.Jayapandian	Food Calorie Estimation using Convolutional Neural Network	2021	International Conference on Signal Processing and Communicat ion (ICPSC)	Convolutional Neural Network (CNN)	Tensorflow's Object detection API to detect food items from image. Also along with that we have also used Random Forest and SVM with CNN	The model doesn't experience the ill effects of revile of dimensionality
3.	Haoyu Hu, Zihao Zhang, Yulin Song	Image Based Food Calories Estimation Using Various Models of Machine Learning	2020	International Conference on Mechanical, Control and Computer Engineering (ICMCCE)	SSD (Single Shot Multi box Detector)	Through the SSD algorithm, object detection can effectively solve many of the above problems	It may not generate enough high level features to do prediction for small objects
4.	Thamos Theodoridis, Vassilios Solachidis, Kosmos Dimitropoulos, Lazaros Gymnopoulos and Petros Daras	AI Nutrition Recommender System	2019	The 12th pervasive Technologies Related to Assistive Environments Conference	Food category Recogniser, Object Vision, Convolutional Neural Network(CNN) and Computer Vision	AI and its various subsets have been leveraged by these platforms to identify the calorie intake and also to make food recommendations for a healthy diet	In order to make recommendations, the system needs to collect nutritional needs from users.
5.	Ibrahim Berkan Aydilek	Approximate Estimation of the Nutrition of Consumed Food by Deep Learning	2017	International Conference on Computer Science and Engineering (UBMK)	Convolutional Neural Network (CNN), Artificial Intelligence, Deep Neural	Convolutional Neural Networks (CNN), a deep learning approach that has been used successfully in image recognition	Deep learning requires expensive GUIs and hundreds of machines. This increases the cost to the users.

					Network and Image Classification	and classification tasks, has been trained with nutrition image training data.	
6.	R. Divya, S. Vithiya Lakshmi and Mrs S.L. Jayalakshmi	Diet Monitoring and Health Analysis Using Artificial Intelligence	2021	International Journal Of Advanced Networking & Applications (IJANA)	Conversational Agent, VDMS	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
7.	Teddy Surya Gunawan, Mira Kartiwi, Noreha Abd Malik, Nanang Ismail4	Food Intake Calorie Prediction using Generalized Regression Neural Network	2018	International Conference on Smart Instrumentation, Measurement and Application (ICSIMA)	Generalized Regression Neural Network, Feature Extraction	The optimum spread parameter was found to be 0.46 when the 568 images was distributed randomly (80% training and 20% testing). Due to very large variation of the calorie needs to be predicted, GRNN has rather large prediction error	Due to very large variation of the calorie needs to be predicted, GRNN has rather large prediction error