

Literature Survey

1. *Neutrino: AI Nutrition App*

As the name shows, the app delivers nutrition-based analytics and data to its users and becoming a leading platform for delivering AI fitness services. It uses mathematical and natural language processing (NLP) models to deploy predictive analysis for tailored data compilation. Further, it shares nutrition-based data with its partners through SDK and API integration to enhance its services and product offering.

It is an Israel-based startup founded in 2011 shares pregnant women to personalize their body's nutritional demands. This app joined its effort with IBM's natural language power to offer 24/7 support and food recommendations.

2. *Fitness AI: Ultimate Workout at Home Solution*

This fitness AI app is created with customized workout plans per user. It started as "gym only software" but now updated its system to meet "at home fitness" demands. ***Fitness AI*** claims to “outperform any human fitness trainer” as its algorithm is trained on over 5.9 million workouts. Moreover, it considered over 10 million sets, weights, and reps from about 30000 advanced gym-goers and weightlifters over three years. In other words, it is an excellent example of machine learning in action for planning workouts exceptionally.

3. *Fit Genie: Smart Calorie Counter*

This AI-based application produces tailored data about calorie intake and shares food suggestions accordingly. Its AI is strong enough at recognizing an individual's taste, body type, food preferences and then tells what one should eat accurately. These suggestions also offer

ingredient substitutions to reach one's body's nutritional demands. All these benefits are gathered in a single nutrition and activity tracker app.

4. Freeletics: Europe's #1 Fitness AI App

Freeletics doesn't promise to be better than a human expert trainee, but it is a well-known fitness app in Europe. It allows its users to stay active and participate in fitness struggles everywhere while getting AI fitness suggestions. According to its CEO,

“85% of its customers enjoy AI-generated workouts and called them perfect.”

Its coaching algorithm offers nutrition and exercise advice based on scientific research, users' input, and personal preferences. Also, it shares a community page where users share information about their success, interact, and inspire others.

5. Suggestic: AR-Based App

It works on a machine learning algorithm in collecting data from persons' health using tracking devices and food logging to share tailored food suggestions. Its bot answers the user's queries throughout the day. Moreover, its augmented reality feature recommends menu items when users sit in a restaurant when the app is pointed to the menu list. You can download this excellent fitness application from iStore to see active AI in nutrition.

6. Vi Trainer: Virtual Coach

This virtual coach uses AI to help its user achieve fitness objectives by motivating them to run more often. It shares the best-customized training plan based on your age, gender, current body level, goals to achieve, and other factors just after you install the application. *Vi fitness AI app* is in action in starting enjoyable and dynamic training in real-time to personalize users' experiences based on their preferences. Plus, its bio-sensing headphones make it unique

among other similar options. It offers exercises that can be performed, whether inside or outside.

7. *Calorie Mama: Cultural Food Identifier*

Its image classification and AI-powered technology involve in identifying food rightly. When a picture is shown to it, ***Calorie Mama*** calculates calories in it. Its food AI, proprietary API, is trained to detect and identify cuisines globally, making it the best food identification app.

8. *Whoop: Improve Sleep Patterns*

A professional baseball approves this fitness app for in-game use. It collects and stores data in the cloud for processing, making it unique among other fitness apps. Up to 100 megabytes are available for each user per day. The wearable is used to boost sleep and recovery patterns. It focuses on manually assigned sleep stages by the polysomnography technicians and reproduces them with trained machine learning algorithms. The app provides automated sleep stages and estimates per day performance compared with other users over time. Thanks to artificial intelligence in fitness, that learns and responds accordingly to improve human health.

9. *Eat Right: Tailored Food Recommendation System*

The app developed by Amos Wong specializes in using machine learning and artificial intelligence. It identifies dishes on the menu, and then AI in nutrition helps the user prefer the right dish over others.

10. *Lark: Training and AI Fitness Coach*

It is a conversational, interactive, smart, and modern fitness app that tracks fitness productivity and talks with its users. It is also known as weight management and human fitness training coach. Its outstanding

AI-chatbot shares intriguing suggestions for health improvements, available for both iOS and Android users. Plus, it uses data from leading nutritional experts globally and uses users' devices to track their lifestyle choices, activities, and routine works. It asks about eating habits to suggest the best meal plans, health solutions, sleeping behavior, and exercise routine.