

AI Preceptor : Guide for Fitness

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***Abstract:** These days, virtual assistants play a crucial role in our daily activities and have become an inseparable part of our lives. The field of AI is emerging, and one project that aims to explore its potential is the development of an AI-based workout trainer called AI Preceptor. This desktop application detects the user's exercise pose, counts repetitions, and provides recommendations for improving form. The lack of physical activity is a significant contributor to the global obesity problem. Fitness is widely recognized as an essential goal for a healthy lifestyle and is used to measure health-related quality of life. While a fitness trainer can offer motivation and guidance, their services can be expensive and may not be accessible in certain settings. Additionally, exercising alone without supervision can lead to mistakes and incorrect form, which can be dangerous and ineffective. The AI Preceptor project seeks to address these challenges by utilizing artificial intelligence to detect the user's exercise pose and offer personalized recommendations for improving form. By analyzing key points coordinated with correct and incorrect form, the app's algorithm evaluates the user's pose and provides detailed feedback. This personalized guidance can help users avoid injuries and optimize their workouts. By combining the convenience and accessibility of virtual assistants with the expertise and guidance of a personal trainer, AI Preceptor aims to provide users with a valuable tool for safe and effective exercise. It aims to bridge the gap between the potential risks of exercising incorrectly and the benefits of having a personal trainer. Through the use of AI, users can receive real-time feedback and make adjustments to maximize their workout routines. In summary, AI Preceptor is an innovative project that leverages AI technology to offer personalized workout guidance and form correction. Its goal is to provide users with a virtual workout trainer that can enhance their exercise routines, promote safety, and help achieve their fitness goals without the need for a physical trainer.*

Keywords: Fitness

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