Slide 1

Hello, I am David Odesola. I am a research student at the University of South Wales within the Biomedical Engineering and Computing Research Group. I am working on a project titled "Artificial Intelligence Model for Continuous, In-Home Posture and Health Monitoring with User Feedback and Clinical Assessment Predictions."

This project is conducted in collaboration with the Rehabilitation Engineering Unit (REU) at Cardiff and Vale University Health Board (CVUHB). This project is being supervised by Dr. Janusz Kulon and Dr. Shiny Verghese.

The primary goal of this project is to develop a state-of-the-art system that is capable of monitoring various types of sitting patterns as well as provide actionable insights that would further promote one’s health and well-being.

Slide 2

At this stage, I have developed a simple prototype using OpenAI’s GPT-4 LLM model which generates personalized recommendations based on historical postural data that was provided. The recommendations generated is aimed to encourage the end user in adopting healthier sitting habits.

Slide 3

In the survey, you will see a simulated timeline of a sitting pattern being adopted over an hour period. This historical data was fed into the GPT-4 model along with the corresponding prompt (AS seen on the left) while the generated recommendation (is shown on the hand right).

The purpose of this survey is to evaluate several aspects of the system, such as: the accuracy and relevance of the suggestions, the practicality of the recommendations in a real-life setting, and the clarity of the instructions provided. Additionally, the survey will help identify which prompt generates the best recommendation.

Slide 4

It must be highlighted that I have generated 4 surveys which cover different types sitting patterns such as (static sitting, erratic sitting, ideal sitting, fatigued) All 4 survey links must have been sent out to you. Please feel free to randomly select one of them for you to fill out. It would be greatly appreciated if you can answer more than one of them. However, this is not mandatory. Each survey has 22 questions, and it should take approximately 10 mins to complete.

Your feedback will certainly provide valuable insight on how I can further improve the effectiveness of the model especially in a real-life setting.

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Thank you very much for listening.