

1. Exercise detection from the video and telling that which body part is not moving in the sync for the exercise. The body joints should move in a specific way to do the exercise, but in the gym there are some amateurs and old people who hurts themselves by doing wrong exercises.

The goal is to create a tool that uses video analysis to monitor the movements of key body joints during exercise. The system will compare the detected movement patterns against established correct movement patterns for various exercises. If any discrepancies are found—such as a joint moving out of sync or a body part not following the correct path—the system will alert the user, allowing them to correct their form before injury occurs.

2. Predicting the correct timings of the student events, and also which events to host. Predicting how to engage the students more using the AI tools making the events more better. Predicting the money required for that.

This project focuses on enhancing student engagement by using AI tools to optimize the planning and execution of student events. The aim is to develop predictive models that can accurately forecast the best times to hold events based on factors such as historical attendance, academic schedules, and student preferences. Additionally, the project seeks to identify the types of events that are most likely to resonate with students, utilizing AI-driven insights to tailor activities and content to maximize engagement. A key component of the project is the creation of a budgeting model that predicts the financial resources required for each event, helping organizers allocate funds effectively. Furthermore, the project will include a recommendation system that suggests event themes, formats, and other elements that align with student interests, thereby ensuring successful and well-attended events.

3. Predicting Social vulnerability while compound disasters, hurricanes and covid19 etc.

This project aims to predict and assess social vulnerability during compound disasters, such as the simultaneous occurrence of hurricanes and pandemics like COVID-19. By integrating data from various sources, including demographic, socioeconomic, and environmental factors, the project seeks to develop a predictive model that identifies areas and population groups most at risk during these disasters. The analysis will focus on understanding how these compound events exacerbate existing vulnerabilities, impacting public health, infrastructure, and economic stability. The project will also employ AI-driven simulations to model different disaster scenarios, providing insights for policymakers and emergency planners to optimize disaster response and recovery strategies. The ultimate goal is to enhance preparedness and mitigate the effects of compound disasters on vulnerable communities.

Github links

<https://github.com/suryansh-max> -> Suryansh

<https://github.com/jainilpatel98> -> Jainil

<https://github.com/NoviceOfCode> -> Jacob

<https://github.com/cam-odell> -> Cameron