

# Department of Informatics University of Leicester CO7201 Individual Project

### **Interim Report**

## Interactive Augmented Reality Platform for Medical Education

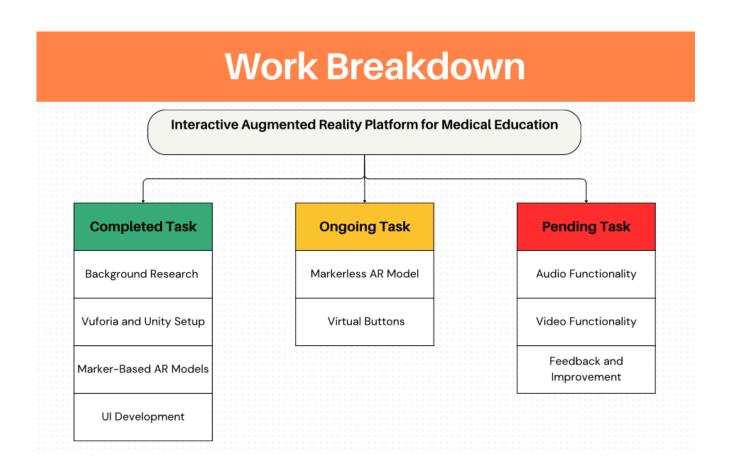
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#### Overview:

The "Interactive Augmented Reality Platform for Medical Education" project aims to revolutionize medical education by integrating augmented reality (AR) to create dynamic and interactive 3D simulations. The primary goal is to improve students' understanding of complex anatomical structures and medical procedures through an engaging and accessible learning platform. Significant progress has been made in developing marker-based AR models and a user-friendly interface. The current focus is on advancing markerless AR models and integrating interactive features like virtual buttons. Future tasks include adding audio and video functionalities to enhance the learning experience. The project is on track and progressing as planned.



#### **Completed Tasks:**

#### • Background Research and Project Requirements Finalization

- Conducted extensive background research on AR in medical education.
- Finalized essential, recommended, and optional project requirements.

#### • Vuforia and Unity Setup

• Successfully set up Vuforia and Unity development environments.

#### • Marker-Based AR Models

Developed and tested marker-based AR models of human organs.

#### • User Interface Development

o Created an intuitive and user-friendly interface using Unity's UI toolkit.

#### **Ongoing Tasks:**

#### • Markerless AR Models

o Currently developing markerless AR models to enhance user experience.

#### • Implementation of Virtual Buttons

• Working on integrating virtual buttons into the AR app for interactive functionalities.

#### **Pending Tasks:**

#### Audio and Video Functionality

• Plan to incorporate audio and video features to provide a richer educational experience.

#### • Completion of All AR Models

• Finalizing the development of all required AR models of the human body.

#### • Feedback and Improvement

• Collecting user feedback for continuous improvement of the platform.

#### **Updated Plan:**

| Start Date | End Date | Milestones  |
|------------|----------|---|
| 26/08/24   | 04/08/24 | Completing the virtual buttons and Markerless AR feature                  |
| 03/08/24   | 13/08/24 | Implementing AR video functionality                                       |
| 14/08/24   | 24/08/24 | Implementing AR audio functionality and completing all models of the app. |
| 25/08/24   | 05/09/24 | Final report and project documentation                                    |

#### **Updated Gantt Chart:**

