MINI PROJECT ABSTRACT - SECOMP-A\_12

TITLE:

3D clothing measurement app

PROBLEM STATEMENT:

To Build an application which uses your mobile phone camera to measure your body parts (such as waist, shoulder) to determine suitable measurements for apparel.

BRIEF INTRODUCTION:

The app will measure different parts of the body through 3D scanning from the camera lens of any device. This app will give easy access to everyone for measuring anything at any time. Not only can you measure the parts of the body in 3D but also in 2D. With an easy interface you can measure in Centimetres and Inches. You can use this app on your smartphone, tablet or on any other device which supports camera sensors.

OBJECTIVES:

* To take quick measurement of body parts for clothing purposes.
* To take 3D measurements for body parts such as waist and shoulders.
* To build a user friendly interface which lets the users select the unit of measurement.

PROPOSED SOLUTION:

Our app will have the ability to measure body parts such as waist and shoulders of a person. The only thing the user has to do is to turn on the camera and rotate once in front of the camera. Once the rotation is completed we will provide the user with their measurements.

TECHNIQUES TO BE USED:

1. Create Vuforia account
2. Create License Key for the AR app
3. Upload an Image as Image Target
4. Understand Vuforia Image Recognition system
5. Solution to White ImageTarget problem in Vuforia version 6.2.10
6. Download 3D model from Unity Asset Store
7. Place 3D Model on top of Image Target
8. Download ARONE app database from Vuforia and activate it inside Unity
9. Build this app for Android & Ios

SOFTWARE REQUIREMENTS:

* C#
* UNITY
* C/C++
* ANDROID STUDIO
* Vuforia

HARDWARE REQUIREMENTS:

Device Camera

REFERENCES:

1. https://programminghistorian.org/en/lessons/creating-mobile-augmented-reality-experiences-in-unity

2. https://medium.com/tksblog/getting-started-with-augmented-reality-a72889071c6a

3. https://github.com/topics/augmented-reality?l=c%23