Net-a-Porter VR Project

Bi-weekly Report 9
10 March 2017
Group Members: Vania D. Gunawan Setiono (Team Leader), Haran Anand, Yll Kelani

Overview

The past two weeks have been amazing in terms of progress, whether that be ticking off huge features from the requirements, such as the ability to walk around and rotate the garment and building the UI, to understanding better the needs of our scanner to produce better scans. It has really given us a major boost as it has given us the confidence to go and complete some other requirements at the same pace.

Summary of Meetings

Meeting 1 (Wednesday 1st March)
Attendees: Vania D. Gunawan Setiono, Haran Anand, Yll Kelani
Location: MPEB 1.05
We met with Matt Smith to discuss studio/lighting for the scanning of the garments. Our 3D scanner wasn't providing the best scans with certain garments and so we reasoned that that was probably due to the restriction in space of the lobby that we were scanning in and the fact that the lighting wasn't good enough for certain fabrics. So, we were advised to speak to Matt who then said that he couldn't help us find a studio but he could provide us with lighting used for filming. To use the lighting however we have to book a room within MPEB as the mannequin we use to hold the form of the clothing cannot leave the building.

Meeting 2 (Tuesday 7th March)
Attendees: Vania D. Gunawan Setiono, Haran Anand, Yll Kelani
Location: MPEB 1.05
We met to get everyone up to speed with the different work we were doing and help each other with any issues we were having. At this point we were quite far into developing the different facets of our app although we did discuss that we need to think about how we accommodate user personalisation of the mannequin. We spent some time working together which was useful to accelerate progress enough so that we could show all the effort we have put in, in our demonstration.

Meeting 3 (Wednesday 8th March)
Attendees: Vania D. Gunawan Setiono, Haran Anand, Yll Kelani, Dr. Harry Strange
Location: MPEB 1.05
This was a very brief meeting in terms of our direct involvement. We essentially just relayed our progress to Dr Strange, who was quite pleased with our progress and essentially told us just to continue with the way we were going. During the rest of the meeting we were also able to find out what the other other teams were doing, which was good as we might potentially use the AI chatbot's API at a later stage of the app.

Tasks Completed

- Created a basic app where the garment is set in a fixed position and allowing the user to be able to walk around it.
- Implemented the rotation function to allow users to rotate the garment around using hand gestures.
- Created a basic UI which includes buttons that hides and shows the garment assigned to each button.
- Tested our app on the Hololens.
- Requested a suitable room, lights, and mannequin to aid us in 3D scanning the Net-a-Porter garments.

Problems

We faced some problems during development of the Hololens app. For instance, we had problems with the rotation as the rotation pivot is not in the centre of the garment. This was caused by changing the Y-axis value of the GameObject and the 3D model itself at the same time. Hence, when the rotation script is executing, the Y-axis values of both components change, making the rotation of the garment incorrect. We also faced problems with our UI as it does not show and hides the holograms when the app is deployed to the Hololens.

Next Steps

For the next few weeks, we are going to fix our UI problems and add the “Tap to Place” script to enable users to tap on the garment and place it somewhere else. We are also going to implement the voice input script so that users can use voice command to manipulate the garments and navigate through the menu with their voice. Moreover, we aim to get a working prototype ready soon to give a demo to our client.

Individual Contribution

Vania D Gunawan Setiono

Over the last two weeks, I have implemented several functions including enabling users to walk around the garment on the Hololens, rotation function and cursor on the hologram. Moreover, I have integrated the basic UI that Yll created on our app. After creating a basic app with all those functions implemented, I tested the app on the Hololens and tested whether the functionalities worked on the actual device. I also contacted and arranged meetings with some UCL staff to borrow lights and mannequin for our 3D scanning next week.

Haran Anand

Over the past two weeks, once Vania had got the rotation and walking around the room working, I worked on trying to make the clothing in the app look a lot sharper and a bit more intense in colour, as being a hologram, there is a level of transparency, which we would like to limit as much as we possibly can. As well as this, I met with some UCL staff with my other teammates and conveyed our scanning situation to them in order to borrow some professional lights, for scanning our garments. I also helped to arrange a suitable room to actually do this in as well.

Yll Kelani

Over the past two weeks, I focused on trying practical methods within Unity to adjust the shape/size of an object and implemented a basic UI that was integrated into our application. We need to adjust the shape of a mannequin to conform to a user's body shape. I experimented with a few different methods but none were providing success so I diverted my attention to the more important task of creating a UI for the app. The decision to develop the UI now was encouraged by Dr Yun Fu and our TA. I created a basic UI that allows you to choose the piece of clothing you want to view. I first did this separately then me and Vania combined her app with mine so we could demonstrate.