Eric Albino

Assignment 3

Senior year project

<p align="center">Capstone</p>

The purpose of our project is to provide people who are deaf or have hearing trouble to understand people speaking to them. The idea is for a user who is deaf or has hearing trouble where a device that displays text bubbles over people talking. It should provide a learning experience for me to develop a project that involves a purpose and a set goal in mind. I also believe that this has not been done before and is unique. This project will also involve modern technologies such as AR/VR and text to speech libraries. I am excited for this opportunity to work on these technologies.

I have taken classes at the university that can help me with this project. The first class I would like to mention is software engineering. The project is going to consist of multiple modules, so it is going to help to create UMLs and class diagrams. Software engineering design also taught us project design process, which will be applied to the project. Another course that will be applied to the project is python programming. In this project python will be used to interact with a microphone and it is important that we set up the environment correctly and use correct third parties all of which was taught in the python course.

My experiences in co-op would be applied to this project as well. At Honeywell I was a software engineer intern and I was developing code for PLCs and machines and how they interact with each other with message buses. This experience would be applied for writing code for communicating the AR and its devices. At Honeywell I attended an agile/scrum conference and I would like for this project to have an agile/scrum environment and project process. At Projetech I was a Software developer, I was in control of source control for a project which I can apply to this project by using github. A technical skill I learned there that I was Amazon Web Server, which can be used if we ever need to use any cloud resource.

I am highly motivated to work on this project for a couple of reasons. One reason is to be able to work on a new technology that I haven't develop on before which is an AR/VR device. It always excites me to work on new project and an opportunity to work on new technologies that I have not touched. Another reason I am motivated to work on this project is the opportunity present the project to potential investors and UC faculty. Our approach for a solution is to use a microphone that can capture speech and transfer it to text which we can display with a text bubble. This text bubble will be created using Unity game engine.

We will evaluate ourselves by using github's tracking system. The way it works is group members are tracked for how many pushes they make to the origin. The lack of pushes to origin means that a group member is stuck on a feature or not putting the effort. Our expectations as a group throughout the year is to put in decent amount of hours on the project per week and for group members to attend weekly meetings. The goal at if we make a prototype of the project. If the prototype works that means we have accomplished our goals.