Assignment 3

Option 1 - Justin Williams

Justin is proposing a method of storing and sharing medical data from patients to doctors in the form of a wireless reporting device. The device could take the form of a glucose meter for example, and communicate via bluetooth to a smartphone, which can be given to a doctor. With my experience in microcontroller systems, mobile app development, and C++, I would be able to bring my technical skills to help implement the idea. Justin, Nishant Panchal, and I have already discussed our partnership on this project, and will most likely be moving forward together on this project.

Option 2 - Anthony Matos

Anthony proposed a wireless notification device that connects via a Wifi LAN to mobile devices. The device acts as a unifying structure between a wide range of other devices. Given my experience with C/C++, I would be able to aid in the implementation of the device at a low level if needed. Although I would modify the idea slightly to make it more of an embedded device with greater emphasis on low power consumption, I think it is a very solid idea. However, I wouldn't see myself working on this project because of the difficulties of creating a standard messaging system for inter-device communication.

Option 3 - Michael Paulauski

Michael proposed a system of autonomous delivery drones. These drones would reduce delivery cost, as well as greatly decrease time required to send packages. With my experience in optimization algorithms and machine learning, I could bring experience in AI development to the team. However, I would not join this project simply because the proposal is a bit unrealistic. First, Amazon has the manpower and resources needed to develop this much faster than us, as well as the fact that small UAV-type package delivery as a concept is problematic in the sense of defense against threats (natural and man-made).

Option 4 - Giancarlo Rico

Ian proposed a method of using existing VR hardware to interact with filesystems in a 3D environment. This idea seems very interesting, and I could bring my experience with C++ programming to help implement the concept. The idea itself is very interesting, although I believe it is out of the scope of a two-semester project. The learning needed to even compile code for hardware such as the Oculus Rift would be very time consuming, and would leave very little time for the actual task of creating the interface. Overall, this would be a great project to work on, but only if more time was given.

Option 5 - Nishant Panchal

Nishant proposed an idea along the lines of Ian's - a VR environment aimed at using existing VR hardware for new purposes. Again, the use of VR is extremely interesting and I could bring my background in C++ to the table, but the feasibility factor is lacking. In the time given for the project, Nishant's idea would not be completed. Alternatively, this project could be modified to create the same type of environment on a conventional 2D screen, with the hopes of one day modifying it to migrate towards a 3D system.