Jordan McGhee Cumulative Reflection Essay CprE 494 10/7/2022

## Cumulative Reflection

In my time here at Iowa State, I have been exposed to a large variety of different subjects and fields that I never imagined myself being able to work in. I have taken classes that discussed everything from the social and economic factors surrounding the U.S, I have learned about some of the principles of flight that allow us to travel through the skies, and I have even delved into the world of semiconductors, which enable us live and work more efficiently.

In the early stages of my education, I was required to take general education electives aimed at ensuring that I was aware of Diversity in the U.S, as well as giving me exposure to more international issues. Within these classes, I have worked collaboratively with my peers to create presentations and research papers on African Cultures, as well as learn about how these cultures have shifted and been influenced over the years. Shifting to more technical aspects, I have also learned a lot about mechanical design and engineering principles from my core classes. I had taken classes on aerodynamics, digital design, and software development, most of which involved projects that ensured I would learn the key aspects, putting me at a good starting place to do my investigation. For example, I had taken a class on networking protocols, and each week we would have our self-contained project that stretched our understanding of how networking operates at an O.S level, and from this class, I have gained the confidence to develop my networking protocols for non-traditional use.

Another interesting aspect of my education that I have trained over the years would be in my problem-solving abilities. In learning here, I was repeatedly subjected to challenging problems involving utilizing outside resources to achieve a useful solution. Of the countless examples of me doing this, the one that stands out the most to me would be in our graphics processing architecture class. Within this class, we were tasked with developing a GPU over the semester. One of the requirements of the GPU was that it should be programmable using the OpenGL standard. Since the OpenGL standard was not taught in previous courses, nor did the class go into much detail about how these standards operate, it was up to the students to actively search out the details needed to support all of the needed instructions.

I will always treasure the experience that I have gained at Iowa State. I think that the number of things I have learned here will help me to pursue bigger and better goals, allowing me to conduct experiments of my own so I can contribute back to the scientific community which has brought us this far. I don't think that I could have developed myself both culturally or professionally at any other school.