Cumulative Reflection

My time at Iowa State has prepared me for the future in a variety of ways. One such way is the project based classes that were present throughout my education. Almost all of my class projects were team based, which required a good amount of collaboration, often with differing people, which helped me in my ability to work in diverse teams. Knowing how to accommodate multiple styles of thinking will be very useful in my culture. One example was in English 314 - *Technical Communication*, which is a class with a huge final paper over a technical problem or technoch is very technical, requiring very professional language that engineers would love to exclusively use. However, it was a cross listed english class, which meant we had to use language that was technical enough to accurately describe the subject, but also a low enough level that the entire group would understand and contribute. This is the type of project based communication, and teamwork required in the workplace; not everyone you meet will be an engineer! I used this in my internship with Boeing while writing a report for a FAA audit. While it was important to use technical details to explain exactly how the Network File Server interacts with the rest of the plane, it's also important to use language that the entire room, including the non-engineers can understand. A delicate balance needs to be struck, and training was needed to figure out how to best approach the report writing.

Going towards the engineering side, there was also quite a bit of problem solving present in the projects. For example, in CprE281 - *Digital Logic* and CprE288 - *Embedded Systems*, there are many labs throughout the semester that culminates in a final project that simulates a real world, complex problem. It involves combining all the small, individual skills learned in lab into a project, much line one you'd get assigned in a job one day. I had to apply something similar in my internship with Spreetail. They started me on small projects to learn how data was stored and how their software processes worked, and had to eventually apply

projects, such as implementing a resale costing system. Furthermore, I also used this as a learning opportunity. I used SQL syntax to create scripts to automatically process checked in parts, compare the parts to historical pricing tends, and reassign a new SKU and price to it to resell. THis was all good, but I realized that I could only do it in SQL, which is becoming outdated. I took this chance to convince Spreetail to sign me up for NoSQL database training sessions, specifically in Mongo, to better grow as a candidate. There's always a newer technology or another way to do things one can learn.

Talking about lifelong learning, I learned the importance of this through my involvement in PrISUm, the solar car team on campus. There's quite a few things done in the club that have either never been done before, or involve something that is new. As such, one needs to keep learning the newest and best materials. One example of this is our solar array. We assumed that we could always use a silicon array due to the high cost and ease of use. Then, we somehow managed to get a full Gallium Arsenide array donated. In order to do this, I had to quickly learn a new technology, all about its handling, implementation, and use so that we could use it for the car. This taught me the importance of learning things, but also taught me that educational opportunities are everywhere. In order to learn how to use the newest technologies, even ones that you think you'll never use, one has to keep learning constantly.