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Cumulative Reflection

With the breadth of classes that Iowa State University has offered me, I believe I've been quite prepared to design systems, solve problems, and impact solutions. My coursework has been challenging but also fun and interesting. I have been challenged to design systems and processes that have multiple constraints and meet multiple requirements. Throughout my time at ISU I have had to solve many difficult problems. ISU has prepared me to solve these problems by presenting problems that are real-world and that cause me to think hard. I've learned how to measure trade-offs and understand pros and cons of different solutions.

Several classes that I've taken have had group activities and projects. This has been really useful and will help me work in teams in my career. Teamwork is very important and there are very few cases where people do not work in a team. Teams perform better than individuals and this is an important realization I've had at ISU. I have been in software project groups of varying size and length, cyber defense competition groups, and general class project groups. All that experience has helped me understand how to work with others and to take into account their personalities and backgrounds.

ISU has also prepared me to take on contemporary issues in the world. My classes have discussed many of the relevant topics and issues that relate to modern computing. By attending clubs I have gained experience in tackling real world issues and learning about things that my classes not have touched on.

In my orientation and portfolio classes, as well as some of my normal classes, I have learned the importance of professionalism and ethical responsibility as an engineer. I've thought a lot about ethics by going over case studies and discussing it with classmates and others in my field. Ethics are important in engineering because as engineers we are pushing technology farther than it ever has been before. I've learned to make sure I ask myself the question "Is this ethical?" regarding decisions and actions in engineering.

Throughout my time at ISU I was able to surround myself by many resources to help get through problem solving and tasks. The most important resource I surrounded myself with was the people. I did this by collaborating with classmates and people in clubs.

Going to student clubs and meeting people was very important for becoming a lifelong learner. It made the topics and concepts I was learning in my classes a lot more interesting. I could apply the theory and basics learned in class and reinforce them outside of the class. I learned how to learn in these scenarios, which allows me to continue learning after I graduate and throughout my career.

Though my experience has been extremely positive at ISU, there's probably a couple things I would have done differently. The first thing I would change is my personal organization. Over the last few years I've developed a solid system to track my progress on assignments and to keep track of important due dates. This would have been really helpful when I started my undergraduate degree. I probably would have go software engineering rather than computer engineering because that's what I'm interested in, but as a computer engineer I was able to get some hardware experience as well, which helped me realize I'm not interested in that.

Overall, I believe I have learned a significant amount while in Iowa State University's College of Engineering. I have learned how to effectively design systems and solutions with technical, environmental, and global factors included. I have learned how to learn and how to continue learning as I progress through my career. I have become aware of contemporary issues in several facets of engineering. Finally, I discovered and used tools that enable me to be an effective engineer.