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A Reflective Journey: Navigating my Cumulative Experience at Iowa State University

Throughout my time in Computer Engineering at Iowa State University, the classes and experiences I've had have allowed me to develop skills that have enhanced my problem solving and ability to learn. These experiences range from in-class learning, to out of school activities, all of which have been valuable experiences to me, and have taught me many things about myself, my work ethic, and my plans for the future. Throughout this essay, I will be reflecting on these experiences, and highlighting the most important things that I think I've learned during my time at Iowa State.

Early in my program, my courses mostly focused on foundational skills. Even though these classes were simpler in nature, I felt that I was building a strong base for problem solving. Even though my freshman year wasn't super defining as far as my skills as an engineer, one of the most important opportunities I had the chance to become a part of was the honors first year mentor program. This mentor program allowed me to join a research project outside of normal courses that inspired me to not only apply the things I learned in classes, but to learn things outside of them as I worked on developing 3d printed prosthetic controls. Even as a senior I still actively participate, and enjoy attending this research and have gone from a member as a freshman to a leader as a senior. Nowadays I spend a lot of my time teaching the underclassmen below me the valuable things I learned in research, and coach them through working on their projects as well, which has been a great leadership experience for me.

Starting off in my sophomore year, I started working on classes where we designed real systems and projects. More specifically, my COMS 3090 and CPRE 2880 classes were two big

project classes where we had to progressively grow our skills and build a large system throughout a semester. In COMS 3090, we progressively developed an Android application in a team throughout the semester. During this class, I worked on the backend of our app, learning how to build relational database systems and interface them with front-end app requests. This class was really enjoyable for me because it showed me how to manage working in a team with project management strategies. We learned how to use systems like sprints, and also how to use external resources when coding so that we could implement unique functionalities for our app. If I hadn't gone on my own to learn new techniques and libraries that I could use, our project wouldn't have turned out as successful and I feel that I wouldn't have gotten as much out of the class. I think this class also showed me that especially in this industry, it is important to always be growing and expanding your knowledge because it improves your ability to know what it takes to implement something, and what tools you could use to do it.

Another defining experience I had as a sophomore was a student leadership role I took on as the vice president of Geoffroy Hall. In this role I feel like I was able to gain experience outside of engineering in a more societal context and economic context. Throughout my sophomore year as vice president, we planned and budgeted events, voted on campus wide issues, and passed bills that were aimed towards making ISU better. Participating in these discussions was really eye opening to me as I had never really done any sort of student leadership before, so it was really cool to learn how to run meetings and organize events.

For the rest of my degree, I've spent a lot of time now in these past two years just improving my skills and learning more as an engineer. Some of my favorite classes are ones that I've taken that were really difficult but not required for my major. One great example of this is my CPRE 4880 class which was another embedded systems class that I took during my Junior year. This class had a infamous reputation for being one of the hardest classes in the computer engineering major, and I thought that it would be good for me if I took it, since a lot of people said it was the best and hardest class they have taken at ISU. This proved to be another

great experience for me since this class made us take responsibility for our learning and spend time reading professional documentation and datasheets. While this class was very difficult, completing the labs and final project showed me that if I want to really increase my skills I need to challenge myself and enter situations where I can prove myself and work hard. As of my senior year, now I spend a lot of my time working at my internship I had this past summer, continuing my research, and working on my senior design project. This final experience has been great for me, and I feel like I'm starting to work at a professional level with the way that I utilize my background knowledge and learning skills to contribute to my team.

Overall I'm honestly really proud of the things I've accomplished in my degree, and I hope to take the skills and lessons that I've learned here into my professional work in the future. I believe that the courses and experiences I've been a part of have exposed me to a wide variety of world issues, ideas, and communities, and I'm excited to use this knowledge I've gained to solve problems. I hope through reading this reflection you can gain an understanding of how much my degree has taught me, and how I hope to use it in the future.