Kevin Simons CprE/EE 494 Cumulative Reflection

Four years at Iowa State have gone by pretty fast, but during those four years I have developed my engineering skills related to project design, problem solving, and working with fellow engineers. These skills were obtained through not only the many courses I have taken, but also the opportunities that I have taken as a result of my enrollment at Iowa State, such as hackathons and internships, and the resources that Iowa State has provided me such as the library and the career fair. From all of this I can confidently say that I am ready to progress my career past college and move into the industry world.

Project design has been an ongoing learning experience for me, from my first year intoduction to programming with Computer Engineering 185 and project course of Computer Engineering 186, to my junior year classes such as Computer Science 309, another project course, and my senior design class. I have learned how to take an abstract idea, like an LED music visualizer, as in CprE 186, and break down that idea into workable pieces that a team can work on in parallel until we put them back together in the end. Gaining the technical knowledge for project classes was not always easy, until I learned about Iowa State's Electronic Technology Group, who I then would contact anytime I was in need of guidance for hardware side of the projects. It was particularly inspiring to see those working at the ETG who were still dedicated to learning all the new technologies, in order to better assist students. Seeing this I made a much better attempt to learn outside of the classroom, by working on personal projects, to reading about new technologies and good development practices online. This, combined with my courses have made me confident in my ability to tackle a problem, and if I get stuck, knowing how to research and gain the guidance I need.

Working with others is a critical part of being an engineer, and through the many group projects courses, labs, and group assignments, I can say that I learned much about working in a group. One of the major parts of working in a group is understanding your responsibilities, which I learned early in my project courses is a good thing to clearly lay out at the beginning of the project. This knowledge I was then able to take into my internship at Workiva during my last two years at Iowa State. I was confident when starting that I would be able to effectively communicate with my team, and deliver solutions to the engineering problems I would face. I was able to break down the problems that I faced at work and also able to integrate my solutions into a bigger project, something I learned during CprE 381, a class where integrating smaller parts into a larger project was a main focus point. I attribute a lot of the reason I got my internship with my ability to go to the Iowa State career fair, where I was able to gain skills related to interviewing and eventually get an internship.

If I were to have another shot at my four years here, I would probably try to change the classes that I took to relate to a more narrow scope. I think it is important to find something you

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enjoy doing, and focus on that. So after finding my desired field to work in I plan to continue reading tech articles, and watching instructional lectures after I graduate for topics related to my field.