

Cumulative Reflection

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My experiences while pursuing a Computer Engineering degree at Iowa State have been more than just understanding computers; they have also provided me with the means to create useful, reliable, and responsible products. I have enjoyed the opportunity to work in labs and with a range of equipment, from breadboards and circuits to embedded systems and operating systems. My most educational and time-consuming task was creating a workout application from scratch. I was able to see the ideas I had developed turn into a proper software application, which was a workout app. Developing technical skills is important, but I learned there is much more to being a good engineer when it comes to the scope and timeline of a larger project. The general education curriculum I completed was one big part of a larger education that provided me with that perspective. For example, a class on the history of American cities radically changed my view of technology's role. It helped me understand how transportation and infrastructure technologies directly influence communities and people's ways of life. Now, when I do a software or systems development project, I think about how the product may affect a community. It inspires me to design with end-users in mind, to create technologies that are not only powerful but also usable and somewhat beneficial to the daily lives of people.

Another course that left an impression on me was a course on modern Russia. It is just your typical gen ed course, but it gave me a new perspective on cultural and political attitudes, which is very important when working in a global industry like technology. It reasserts to me that solutions for one situation need to be rethought for a different situation, and that having a global mindset is needed for developing ethical and practical technology internationally. In addition to the classroom experience, my encouragement to go up and meet students and collaborate on group projects has helped me out a ton. I learned how to work as a group, divide tasks, and

combine different skills to meet objectives. I also made a huge effort to learn from my classroom lectures and hearing professors and their examples of real-world experience was incredibly insightful as well. Their perspective of how they tackle social responsibilities as a professional engineer is quite helpful. The course around professional issues helped me understand that my role as an engineer goes beyond producing high-quality engineering designs, which are a requirement in professional engineering but considers the safety of the public and welfare. All of this learning culminates when I consider problems in the real world. My technical skills help me to think about how to develop a solution. My other classes help me think about the meaning of the solution. Classes constantly remind me to think about how my work will impact people and their daily lives. This will help me make better decisions as an engineer.

In short, my education at Iowa State University was a combination of deep technical training and also essential broader learning. The engineering courses I took provided the tools to create solutions; the courses in general education, combined with my experiences outside of the classroom, taught me how to select the appropriate and significant problem to solve, but also how to implement that solution in a way that is responsible, ethical, and effective for the society we live in. I feel prepared not just to be a computer engineer, but a responsible computer engineer.