

Cumulative Reflection

CR1

Iowa State University has, for the most part, prepared me for many tasks I may be faced with in my future career as a software engineer. I feel as though I can competently perform in an engineering environment. I have taken a number of courses that specifically cover the skills needed to design and maintain a system, such as my software architecture class. This class helped me to approach engineering problems by first understanding what sort of system is needed for the solution, how the system should be structured, and finally how the components of the system should interact.

Many of the classes I have taken have also taught me how to solve specific engineering problems, like my algorithms analysis class. I feel confident when faced with any software related problem due to my experiences in classes such as computer architecture, networking, and Linux classes. I believe my skillset can make an impact on society in a positive way, as I can use my skills in software to create solutions to many of society's problems.

Iowa State has even prepared me to face ethical implications in my field. My software project management course had a fairly comprehensive unit on the role of ethics in the software industry, and I feel confident that I would be able to identify and execute the ethical choice when faced with an ethical dilemma.

CR2

I have had extensive experience at Iowa State working with a group of peers on a software project. Nearly every programming class I have taken to date has involved meeting peers and forming groups, resolving conflicts, managing team members and executing tasks to reach a common goal. I have no doubt that I will perform in a group setting in the software industry.

Even within the technical classes at Iowa State, there are many opportunities for creative approaches to contemporary issues. Instructors at Iowa State seem to recognize the importance of applying software knowledge in a modern context, based on current issues in society. It is for this reason that I feel comfortable addressing and approaching these issues with the skills that I can offer.

As I mentioned before, many classes I have taken have attempted to prepare me to face professional and ethical responsibilities in a logical and moral way. I have researched case studies in which engineers for major corporations have made questionably unethical decisions, and I have analyzed the consequences of such choices. I feel confident that I will rigorously adhere to my own ethical beliefs and maintain a strong sense of ethical and professional responsibility.

CR3

At Iowa State, I have found that my best resources have consistently been my peers. Whenever I found myself struggling with a specific technical issue related to a class I was in, I have found great success simply leaning over and asking my fellow classmate a question. Often times, even though he or she may not have a perfect answer, their insight combined with my prior knowledge has helped

immensely in solving the issue at hand. I find that this is often a better resource than simply using a search engine, and it allows for shared progress towards understanding.

CR4

Utilizing the career fair was a great help for me. It truly saved me a ton of work searching out companies that I might be interested in. Even though I didn't get an internship as a result of the career fair, it was a huge help in refining my interests in software companies. It was very helpful having face-to-face interactions with employees of a company to gauge the employee culture there, and also to get a feel for how employees felt about the work itself.

Another wonderful experience was my brief, two-week Study Abroad in Sydney, Australia. I had such a good time and experienced a new culture. It surely spurred my desire to travel, learn, and continue to empathize with the vast variety of different people around the world.

CR5

I have consistently been teaching myself new skills so that I may become a better engineer. I have learned a few new languages for fun, such as Python, Ruby, and Haskell. I also enjoy learning to become a Linux superuser by learning and utilizing Linux/Unix utilities to make my workflow more efficient. I enjoy tinkering with my shell environment, as well as my favorite text editor, VIM, and ultimately just learning how to use the tools at hand to maximize my effectiveness as a developer.

CR6

Early on in my undergraduate work, I didn't want to learn anything but programming. I thought classes which taught important programming concepts (software design, network architecture, project management etc.) were boring and wouldn't be very useful. However, being a senior and having taken group project classes, I wish I had applied myself more in those classes. I would specifically try to learn Git version control much sooner. When it was first presented to me, I thought it would have little use to me as a student. Learning it during a group project was one of the most painful experiences, and I still don't feel as though I know everything I need to know to effectively collaborate with my team on shared code. I wish that I had taken the non-programming aspects of programming a little more seriously when I was an underclassman.