SE 494

Fall 2018

Cumulative Reflection Submission

Due date: Nov 18, 2018

Logan Fladung

Submission of cumulative reflection via Canvas

Keep in mind that your cumulative reflection needs to cover:

CR1.   How do you think ISU has prepared you to:
a.   Design systems or processes?
b.   Formulate and solve engineering problems?
c.   Impact engineering solutions in a global/societal context?
d.   Consider ethical implications of your engineering decisions?

My time at Iowa State University has been excellent when it coming to my education. My major, Software Engineering, has required me to take a large variety of classes that have taught me many things. Many classes have used UML diagrams to create outlines for projects and plan out how to go about designing and creating processes. These diagrams are usually made after given a problem similar to case studies that could appear in a non-academic setting. These have been me experience with solving engineering problems that require outside-the-box thinking.

Ethics have been a focus in many of my classes. My professors have required us to solve problems and follow codes of ethics such as IEEE's. This will make a major impact in any context as long as we continue to follow these codes and understand them so that we don't harm ourselves or others with our work. By showing us these codes and teaching the value of them by showing us examples of engineers break them, my professors have engrained the importance of them into us.

CR2.   What things have you done at ISU to prepare you to:
a.   Work in groups?
b.   Recognize contemporary issues?
c.   Understand professional and ethical responsibilities?

Some things I've done to prepare for working in groups are working in groups in-class, participated in large group activities (I'm in a fraternity so events such as Yell Like Hell, Varieties, and Lip Sync), and being a teaching assistant. I've had to lead group discussions and teach others during my time here.

I've had professors take time out of class to discuss events going on in the world. Many of them have discussed different technologies and the impact that they have on the world. Being on a college campus has let me converse with people from many backgrounds. This has been a learning experience since everyone has their own stories and struggles to learn from.

Class has been a major part of learning professional responsibilities. Outside of it though has been my job as a teaching assistant and understanding the importance of meeting deadlines and helping those in need of it. I've had to write papers over ethics violations and how people with good intentions did wrong in the eyes of society. Learning from these mistakes has helped me understand such responsibilities.

CR3.   In class projects & problem solving tasks, did you draw upon information, research or experiences beyond what was provided in class to successfully complete your work? Please state which resources here and how they helped you to complete work (e.g. library resources, specific professional journals, experts in field, other students).

The number one resource I used during my time at Iowa State was the internet. In many of my classes we learned concepts briefly and then applied them to homework or projects. Being able to lookup a topic and be given a large array of resources to draw from has been incredibly helpful. Otherwise, my classmates, teaching assistants, and tutors were the next most valuable resource as they would better understand the context of my questions.

CR4.   How did learning activities outside of the classroom (required 124.5 credits), such as Student Orgs, Career or Study Abroad Fairs, Undergraduate Research Experience (REU), or other university programs help you to understand the importance of Lifelong Learning?

I joined a fraternity my freshman year and I would cite that as one of the best places I've learned the importance of Lifelong Learning. I've met dozens if not hundreds of people through it and participated in many activities that required me to learn new things. Career fairs and subsequent interviews taught me a lot about what to expect from companies and what they would expect from myself. A study abroad fair led me into studying abroad in Birmingham, UK for my spring semester sophomore year, which I would accredit so much of my college experience and gave me a unique learning experience.

CR5.   Have you started to undertake any new learning to improve your ability to apply skills or knowledge to new problems and to develop confidence in taking risks? Please explain.

As a programmer, I have dealt with a lot of different programming languages and paradigms. Something I do to practice my skills is take old homework and solve them again in a different language (such as C++/Java to Python/JavaScript). This lets me experiment with different language libraries and become more familiar with new tools. I'm not sure if it really develops confidence in risk taking, but it does let me feel more comfortable when I'm required to solve tasks in an unfamiliar setting.

CR6.   In the context of the first four questions, if you were to do your undergraduate work again, what things would you change?

If I could redo my undergraduate degree, I would first and foremost become a teaching assistant earlier. I waited until spring of my junior year and I wished I started right away sophomore year. I had the grades and ability, so it would've been great to TA for multiple classes rather than just one. I would also make more friends with my classmates early on and form study groups. While I enjoyed my major, I do wish I could've been in a learning community, but SE didn't have them at the time.