

My journey at Iowa State University started in fall of 2009 after I graduated from West High School in Sioux City, Iowa. With very little engineering knowledge, I started my journey with a dream of becoming an engineer one day. It has been a long journey filled with challenges and hard work but it has a very rewarding experience and had a feeling of accomplishment at the end.

In fall 2009 I was accepted into Iowa State University as a computer engineering student. However; I found out after one year in the program that computer engineering was not my field of interest. I decided to follow my academic advisor's recommendation and switch to electrical engineering, and this was the beginning of my engineering journey. As I progressed towards my bachelor's degree in Electrical Engineering, I started taking core classes, and found these core classes improved my ability to apply skills, and knowledge to new problems. It also improved my professionalism and ethical responsibilities.

One of the classes that introduced me to the fundamentals of electrical engineer was EE 201(Electrical Circuits). In this class the basic knowledge of circuit analysis was tough, namely Kirchoff's voltage law (KVL) and Kirchoff's current law (KCL). The class not only contains conceptual knowledge but also hands-on experience with the laboratory equipment and electronic components. EE 201 clearly defined my interest in electrical engineering, and provided me a great foundation along with proper preparation for the two classes that I consider the most memorable courses throughout my undergraduate years.

The first class was EE 230(Electronic Circuits and System). In this class I had opportunities to explore different electronics applications and was able to apply it to the final project. Utilizing the properties and applications of frequency domain characterization of electronic circuits and systems, transfer functions, and sinusoidal steady state response, our team successfully designed an Electronic Thermometer/ Warning Circuit. This project was remarkable because it was the first time I got to work in a team to solve engineering problems and I was very fortunate to find myself among a team of very smart and hardworking individuals. Therefore, we never run out of ideas and strategies to solve the engineering problems at hand. Also, through this experience it allowed me to understand the importance of strong communication skills.

EE 330(Integrated Electronics) was the second remarkable class. In this class, I was introduced with the semiconductor technology for integrated circuits. Moreover, I learned how to model integrated devices including diodes, BJTs, and MOSFETs. Similar to many others electrical engineering courses, the lectures were accompanied by laboratory. In laboratory, I had hands-on experiences with designing physical layout, analyzing Circuit simulation, digital/analog building blocks and digital circuit synthesis. Utilizing the design techniques and analyzes skills we learned in class, as a team we designed an Elevator control Circuit. This project was fun to work with because we were able to design a circuit that could be extremely useful in the elevator industry. Throughout the process, we ran into various problems that took us a while to develop a solution for; however, once we overcame each problem we learned a way to solve that problem for future reference. This project helped us understand much more about Hardware Description

Languages in the working environment. As soon as we started the analysis process, we found that there were many problems that were never clarified in the introduction. To finish the given task, we developed our own understanding and assumptions of the problem and ways to solve it. Ultimately, our design satisfied all the required functions and more. Overall, we really enjoyed this project and are quickly realizing what it is like to be an electrical engineer.

The overall theme should speak for itself through this reflection. Now that I am coming toward the end of my journey, I can proudly state that Iowa State University Electrical Engineering program has been intellectually rewarding to me. It has provided me with strong engineering and knowledge skills as a preparation that is needed to be successful in the real world. Furthermore, it has allowed me to work and collaborate within diverse engineering teams, which helped me develop a strong and effective communication skills. Finally, through all these memorable years at Iowa State University, it has proven to me that learning is a lifelong process and given me the opportunity of a lifetime to explore the wonders of the world.