

Jackson Doyle

EE 4940

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### Cumulative Reflection

My name is Jackson Doyle I am a senior at Iowa State majoring in Electrical Engineering with a focus on power systems and a graduation date of December 2026. In my time at Iowa State I have grown in both personal and academic ways and have begun in my journey to developing into the engineer I am meant to be.

In any tale there is only one place to start, the beginning. In fall 2023 I began my journey here at Iowa State University as a declared electrical engineering major. I made the decision to attend ISU rather easily due to the quality of program and proximity to my family, alongside being an in state option. That choice is one I have not regretted even once. In my time starting out at ISU I quickly tried to get involved by joining the running club. Having run track and cross country in high school it only made sense to continue into collegiate club running to stay in shape and provide myself a way of meeting new people. In my course work I was able to meet many intelligent people and make connections with them, helping each other study and work through the learning process together. Through high school I had been fast to learn in my classes and had been a strong student academically but from the first exam I took as a student at ISU I knew I needed to be serious about my academics.

The first real test I faced was MATH 1660. This course, also known as Calculus II was a wakeup call for me, it was the first time in my academic history that I had failed an exam, but from that experience I was able to realize the flaws in my academic and learning process and notice the lack of understanding in my work. I was simply memorizing patterns and not understanding how to solve problems. After this realization, I would go on to do well on the other exams and the final, ending my first semester with a solid GPA as my other courses also went well.

I soon after took my first Circuits course and in my mind my first real EE (EE 2010) course in which I learned that this major was going to be a true challenge. This wasn't the same as solving an integral or deriving functions, instead circuit analysis was a completely unique process for every circuit. It was in this that I would begin to develop my own ability to solve engineering problems and realize my enjoyment of electrical engineering concepts. If I could do it over again, I would have taken that time as an opportunity to solve more problems. Solve so many problems that it would become second nature. As my courses have increased in difficulty and complexity I have found at times I lack in my base

problem solving strength. In turn, I tend to struggle at the start of semesters as it takes me some time to develop a base of practice and understanding in my courses.

Outside of base coursework I have worked on projects alongside peers that have allowed me to expand my experience base and grow as a problem solver and as an engineer. One Such project of mention was my project for CPRE 2880. In this project I worked alongside 3 other students and we developed a autonomous greenhouse cleanup/maintenance system using cybots. In this project we had a group with diverse skill sets and being able to work together well to achieve the goals of the project took communication and active teamwork. At Iowa State, in any of the projects I've taken part in, whether engineering related or not, I've been able to develop not only my own technical skills but I've also been able to grow in my own ability to communicate and work alongside others in order to complete quality work.

Even now as I embark into my capstone project I have found that I will need not only technical understanding to produce results but more importantly the ability to develop technical understanding, namely, the ability to learn consistently with a proven method of doing so is the result of my 3 years at Iowa State. And this skill alone is one that makes the degree worth it.

I have had fun here at Iowa State and I have grown into a much better problem solver, communicator, and lifelong learner thanks to the efforts of myself, my peers and my professors. Through challenging course work, difficult projects, and additional responsibilities in my own extracurricular activities, I feel that my experiences as an electrical engineering student at Iowa State University are invaluable and wouldn't give these years up for anything.