

Statement of Purpose

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My career goals have definitely shifted over my college career. As most people do, I gained experience as I went and my priorities have shifted dramatically. Growing up I always had a strong passion for electrical and computer engineering but going to college, I became intimidated by the aspect of exploring the topic. I came to OSU with the strict goals of good grades, harnessing some knowledge, and leaving all aspects of academia behind for a place in the workforce. However, that attitude has shifted. My first semester of Junior year I was able to get back to the place of explorative wonder I had prior to college. I began taking advanced courses, which reignited my passion for the vastness of electrical and computer engineering. These feelings have only grown, which have greatly influenced my goals for the future. I now aspire to find a place in the industry that allows me to continuously explore my field, not just harness some code and complete daily tasks. I hope to expand my skills and shift between projects, always exploring and striving for optimization. Overall, my career goals involve less of a desire for control and more of a desire to expand and explore what I am passionate about in the world of electrical and computer engineering.

I feel that there is a large range of attributes that could produce success in this degree. Personally, I feel there are a select few that will allow a student to fully harness the benefits of this program. Firstly, an essential attribute would be resilience. Adjusting to a new atmosphere, new instructors, and new expectations can be overwhelming. I believe that a student must have a large amount of resilience to be able to work through the intimidation of higher education and throw themselves into the unknown. Secondly, I believe a large degree of passion is required. Without passion for the subject, pursuing this degree would quickly lose its appeal. If a student begins to struggle with expectations, or question their abilities, passion for the work being done can always lead to success. Finally, one must have the attribute of humility in understanding that an individual can never know more than the team around him. An ability to understand one's limitations and pursue the knowledge and insight of others is essential to success in pursuing this master's degree.

I encountered several obstacles and challenges throughout my college experience. One of those was the difficult transition towards higher level education. I grew up in a very large family, homeschooled for the first 12 years of my education. This created many challenges my freshmen year. I strongly felt detached from the general student body and was very confused about how to navigate the new environment. I worked very hard to establish myself and now, a junior in college, I feel that I have overcome that challenge. I worked hard to fill in the gaps of my education and I threw myself into several clubs and social groups that helped build up my confidence and technical skills. Finally, I joined the OSU Men's Rowing team which gave me a strict practice schedule, a productive energy outlet, and an opportunity to grow my leadership skills as team captain. What I once viewed as a hindrance to my college experience, has granted me a unique perspective and built my resilience.

One of my most gratifying academic accomplishments would involve the difficult journey to understanding linear algebra. I took the class in the Fall of my sophomore year and immediately struggled with the material. I couldn't wrap my head around certain concepts, resulting in a mediocre midterm grade and loads of frustration. However, I was able to humble myself and reach

out to the professor. Together, we created an education plan. A significant part of the plan was to learn the material in a real world application. My professor felt that I would better grasp the topic if I used it in a project. This resulted in a months-long exploration of the subject that, combined with my interests of rowing, helped me create a 3D motion tracking system for the sport of rowing. In the end, I was able to gain a deeper understanding of the complex ideas I had previously struggled to grasp. Not only did I succeed on the final exam and complete the success plan for the course, I was able to harness the subject and use it to build something I was passionate about. Despite starting out discouraged, I was able to adjust my expectations, work with the class material, and apply it to my own passions. This experience is one of my greatest academic achievements because I believe the rewards gained reach beyond academia.

If I was granted admission to the program, I would hope to grow both personally and professionally in numerous ways. I would like to be involved in novel research and programs that have a real impact on the world of ECE. I feel that by attending this master's program, I will be able to learn tools that will allow me to continue exploring this field, beyond a strict workplace environment. I would also like to grow professionally, by forming real connections with peers and faculty. This would allow me to expand my network in my field, which in turn allows me greater access to knowledge and purposeful research. I hope that through this program I can grow my passions within ECE and gain the foundation needed for the exploration and optimization of the field.