

Global Professional Engineering Profile:
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My Calling

As I think about my future, more specifically my future in mechanical engineering, I feel that my past and present will have a great impact on my development as a professional engineer. I do not want to be just one more mechanical engineer, I want to be the one who really impacts the world we live in. My name is Ashley Nicole Ellsworth and I've grown up near Purdue my whole life. I have a twin sister, Emily, whom I have always competed against to come out on top. We have a relationship that enables us to bring out the best in one another, while still striving to be the "better twin." We have taken similar career routes, both in engineering, but she enjoys the molecular level of objects, while I like to actually see the objects I am studying.

My family has greatly impacted my decision to become a mechanical engineer. My father influenced me by his ability to design and build things around our farm. Since I was five I have been helping him work on our farm, from driving the bobcat, to holding his contraptions in place while he fixes them, to being his gopher for all the tools he needs. Not only have I gained mechanical knowledge, I have gained the problem solving and design strategies needed in the mechanical engineering profession. My mother, on the other hand, has influenced me in a completely different way. She is a home-economics teacher and has been sewing all her life. She passed this talent on to both my sister and I, and I feel it has given me more than just the knowledge of how to sew my own clothes. It has strengthened my creative mind and has challenged me to come up with new ideas. I strive to come up with outfits that are stylish, unique, and most importantly, original. These aspects translate to the engineering profession as a normal day on the job coming up with solutions to problems. While I continue to help my dad on the farm and sew as a hobby, I feel there is no other profession that fits me better. As I start to gain experiences in the mechanical engineering field, I am more assured that this is a right fit for me.

Jump-Starting my Engineering Career

At Purdue University, I am currently on the track to gaining my Bachelors of Science in Mechanical Engineering. As well as my core classes, I am taking diverse electives, such as economics, psychology, and English courses to broaden my knowledge past the sciences and mathematics. I believe as an engineer, one must have the broad knowledge and skills to be able to apply to problems along with the science and math needed. In addition, it is important to me to have mechanical engineering experience. Internships are imperative to gain the knowledge needed for a full time career. Not only do internships provide me real world experience, they enable me to determine what I like and dislike. They allow me to explore companies, to try them out for three months, and then give me the option whether I want to continue in that line of work or not. For example, this past summer I worked as an intern at Delphi Electronics and Safety in Kokomo, Indiana. I worked with the power electronics group on the hybrid vehicle power converters. I performed tests for them using instruments such as an Instron and strain gauges. My main assignment was a bill of design of the power converter. My objective was to create standardized parts instead of having multiple parts being used for the same function. This project proved to be challenging because I had to retrieve information, sort it all out, and then ultimately choose what the future parts would be. Not only did I enjoy learning about what the mechanical engineers did, but I also gained the knowledge of engineering protocol and daily business interactions.

Engineering Outreach

Along with my Delphi experience, I have been involved in a new program at Purdue that helps me spread my knowledge of engineering. The program is called I²D² (Imagination, Innovation, Discovery, and Design) and is sponsored by Motorola. It is a program run through Women in Engineering, and our main goal is to get children involved in engineering. We want the engineering profession to be as common as a doctor, lawyer, or teacher. In order for that to happen, the elementary students have to be exposed to engineering topics, and that is where I²D² makes a difference. We engage students with engineering based activities that get them thinking like engineers. Our program makes learning fun so that the kids will really want to get involved. Our activities range from making paper tables to see how many books they will support, to making rockets out of straws and paper to learn about thrust and drag. This program is very rewarding to me, and I am curious to know how many of those students will become engineers due to our efforts.

Staying involved in social clubs is also very important to me. While these groups are still engineering-inspired, they provide me the social atmosphere I enjoy. I am a member of the Society of Women Engineers and

also the Women in Engineering Program. Through these programs I meet women just like me who are sharing the same experiences or have already experienced them first hand. I have countless mentors available to me and there is always someone who I can turn to. These clubs and experiences that I have mentioned are a part of my present life, but will also provide me with the skills and mind set I will need in my future.

My Unknown Future

As a future global engineer, I will have challenges facing me that are new to this world. This is an excellent time to become an engineer with growing number of problems facing the world today. I will have the opportunity to really impact our lifestyles, whether I help provide the next form of transportation, or design a device that just makes our world flatter. It is difficult to say where I will really end up in this world because my adventure has just begun. I am only into my second year of classes and have only experienced three months of real engineering work. I cannot tell you where I want to be without exploring all of my options. However, I do know my one and only goal that I have set for myself: Find what my talent is and what passionately drives me to make a difference. I have already discovered that this talent is somewhere in mechanical engineering, but the specific area is unknown to me.

Through my past experiences, such as my internship, my commitment to helping spread the word about engineering, and my simple encounters with diversity and culture, I am preparing myself for my future and for a global engineering profession. I currently strive to learn as much as I can so that in my future I will be able to apply myself to making a difference. In my future, I want people to know my name, but more importantly, I want them to know what I am capable of as a mechanical engineer.