

Julie McLain

There are many interesting types of engineering, but the area that I want to study and one day pursue a career in is mechanical engineering. Mechanical engineering inspires me because the opportunities are endless. You can make a difference in the world by applying your knowledge to improve current solutions and create new ones. Mechanical engineering is important to the Navy and Marine Corps of today because without it, we would not have aircraft as advanced as they are to support the warfighter, technology for ocean rescue or exploration, ships, and so much more. Everywhere you look, whether it is the sky, the ocean, or even something in your house, a mechanical engineer has worked on it. Mechanical engineers not only invent solutions with technology and resources they currently have, but they also push the limits of technology to create the unthinkable.

Someone who inspires me in the engineering field is electrical engineer, Katie Pffiffer. Her career and what has led to her success inspires me because it not only shows that she works hard, but that I can one day achieve the same. A big part of Katie's success is that she is a recipient of the SMART Scholarship, which is something I am also working towards. During the application process, she did not receive the scholarship the first time, but she persevered and got it the second time. This scholarship opened many doors for her in the huge world of engineering at bases all over the country. Through the SMART Scholarship she was also able to earn her bachelor's and master's degrees in only five years and has had many professional opportunities. These include being involved in an advanced research group, Rapid Innovation Prototype Lab, where she was able to expand her knowledge of engineering and do hands-on activities. This is very impressive as she did all of this during school, and after school she will continue research on base as she also hopes to lead a project. Lastly, during college Katie was a member and president of the Society of Women Engineers. This is something I am interested in doing in college, and I can also relate to it because of my plans to restart the Women in Engineering club at my high school. Katie Pffiffer is a woman in STEM who I look up to and I aspire to have a career like hers. I can achieve this by looking back at what she said in her video, "Always put forth your 100% best effort".

So many exciting technological advances have been made, but what is even more exciting is what is to come. The technology that is currently used in rescue vehicles has the ability to dive deep in the ocean, so I think if we take some features from this and advance them further, we would have a new device that could be used for deep sea exploration. Modern technologies such as electronic payments, now widely used with e-learning, and quickly developing cars have already made their way into our daily lives. This will continue to happen over time, and more specifically, I think eco-friendly energy technology will play a significant role in the future. We already have solar panels, but a recent technology that is being developed are windows that double as solar panels. The windows are lined with solar cells in the edges, which allows sunlight to be transformed into electricity. The Navy and Marine Corps could use this new technology to build all glass exterior buildings for a sleek yet efficient design. These ideas can also be taken to the Navy and Marine Corps because by using innovative technologies like this, you are able to be cost and energy efficient, while also having a solution that is better for the environment.

As you can see, there are so many great opportunities, technologies, and even people in the world of engineering, and I hope to use these resources and join the workforce to one day make a difference.