Avery Dodson 12th Grade – Holland Hall Tulsa, OK

What Drives Me? Scholarship Essay

I'm DRIVEN by my interest in STEM subjects (Science, Technology, Engineering & Math). I was a naturally curious kid and always asked big questions. I wanted to know how machines worked by taking them apart and putting them back together. I joined a Girl Scout robotics team in elementary school so I could innovate as part of a team. We received patent-pending status twice and even earned a spot at the White House Science Fair, where we got to share our project with President Obama (he even wore a tiara in our group photo, google it!) I'm now captain of that team, and we're putting principles of mechanical and electrical engineering into the robots we build and DRIVE in competition.

My experience DROVE me to design my Girl Scout Gold Award project (equivalent to Eagle Scout) around water quality and my interests in chemistry and environmental science. After discovering an invasive species on the Zink Ranch that's known to be linked to poor water quality, I worked closely with an NSU professor to create a water quality study of that lake and assess the baseline water quality. I then taught girls from six other troops how to conduct their own water quality studies and contribute to a citizen science initiative.

I want to learn all I can and have doubled up in science courses for the past 3 years, taking classes like Physics Honors and AP Chemistry concurrently. I challenged myself with the most difficult STEM courses, like AP computer science and AP calculus, and took classes that gave me an experiential learning experience, like Electrical Engineering Design and Applied Technology Principals. I was DRIVEN to take all these classes in an effort to be as prepared as I possibly could for a STEM-focused college curriculum.

I was introduced to the mechanical engineering through mentors in Girl Scouts, the Society of Women Engineers, and multiple summer camps that I went to. I've been a SWENext member since 5th grade, and I've spent summers doing hands-on engineering activities at the University of Tulsa, Colorado School of Mines, and Missouri S&T. Each gave me unique perspectives on career opportunities.

I want my career to involve something cutting-edge that's new and will have a big impact on the world. I see mechanical engineering having a pivotal role in the future of design and innovation. I've already started building my network of engineers through SWE volunteer work and golf, and I want to continue to grow my professional network.

With the increase in automation and AI technology, there's going to be more demand for engineers who understand both the mechanical and computer aspects of these new technologies. Some of these technologies will impact the cars that we DRIVE, the materials they're built from, and the safety features that we rely on. Knowing where we're headed in the future, I'm DRIVEN to be a part of creating new technologies.