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# Andrew K. Woerpel

## Academic Achievements

- BS in Electrical Engineering from the University of Wisconsin – Platteville (GPA: 3.86)
- ACT Score: 27

## Top Accomplishments

- *SpaceX Internships:* As someone who has derived a great deal of motivation from having the possibility of working at SpaceX, I consider receiving two internships as a part of the LC-39a Instrumentation team my greatest accomplishment. Notable projects for which I made major contributions include the LOX farm safing DAQ densification upgrades, hangar DAQ redundancy expansion for the CustomerX mission, DC power architecture construction and modifications, and the Lightning Warning System. While I would consider these to be my main accomplishments, most of my time was spent doing system activations, troubleshooting, launch pad repairs, and providing instruction to technicians.

- *Aero SAE:* During my junior year of college, I participated in UW – Platteville's Aero SAE team where the goal was to design an electrically powered model aircraft that could lift as much payload as possible. The small size of the team and the absence of other electrical engineers presented the unique opportunity to assume almost exclusive responsibility for the electrical systems of the aircraft. Over the course of the year I engineered an automated motor test stand that allowed us to collect empirical data on the performance metrics of various motor and propeller combinations. This project required me to develop the mechanical design, instrumentation circuitry/software, and the control software which was based around a scratch build PD controller.

- *Microsystems/Nanotechnology (MSNT) Research:* After learning about the excellent facilities and equipment that the Univeristy of Wisconsin - Platteville has for MSNT fabrication and analysis, I approached one of the professors associated with the program about participating in undergraduate research. The project that I was tasked with was improving the process of creating nanostructures using a technique call nanosphere lithography. This research exposed me to equipment such as scanning electron microscopes, profilometers, and various metal deposition machines. Along with having my work adopted as the standard procedure for creating nanostructures using nanosphere lithography at the university, it was also selected to represent the university at an event called *Posters in the Rotunda*. At this event I presented my work to state legislators and administrators throughout the University of Wisconsin System.

- *Achieving the Rank of Eagle Scout:* During my time participating in the Boy Scouts of America I was able to acquire a number of skills which continue to benefit me in my career. Leadership skills developed during my time as the troop's Senior Patrol Leader have helped me to effectively lead others during school projects, competition teams, and internships. Wilderness camping and participation in outdoor service projects helped me to be better prepared for environmental conditions (and bugs) at the Cape. My time in the scouts culminated with my Eagle Scout service project where I led a team of 30 scouts and adults to build and install a mountain biking bridge that I had designed. This project required a total of 148 man-hours from myself and volunteers.