As a college senior, Gina Lombardi was discouraged by both the lack of environmental engineering jobs in her area and from the feeling that she couldn’t keep up with some engineering students who pulled a 4.0 average and scored 100% on every test. Her outlook changed significantly after participating in NMSU's Waste-Management Education Research Consortium (WERC) Design Competition.

“There are many ways to be successful aside from, or in addition to a GPA. Those student engineers with work ethic, social and communication skills, organization, and drive to succeed—they will succeed,” Gina says. “WERC saved me in engineering and kept me in the field. I realized I have a spectrum of other strengths that make me a successful environmental engineer and colleague.”

WERC was established in 1991 with the mission to develop human resources and technologies that assist various levels of government and private sector companies with environmental restoration, waste minimization, pollution prevention, and conservation of natural resources. The tasks presented at the contest represent real world problems faced by sponsoring industry and government agencies. Often, the solution presented by a team will provide an implementable process, or open a door to a new direction of research for the task sponsor.

Universities from across the US take part in the rigorous contest. Gina participated in WERC, supported and coached by advisor Dr. Linda Riley at Roger Williams University in Bristol, RI, who was an experienced mentor and WERC participant who helped prepare her team. Before her position at Roger Williams, Dr. Riley worked at NMSU for 17 years where she held positions as the Director of the University Center for Economic Development Research, Assistant Director for the Center for Business Research, Director of the Advanced Modeling and Simulation Laboratory, and Associate Department Head of Industrial Engineering.

The team’s project involved collecting cooking oil from a university dining hall at Roger Williams and used a centrifugal system to adapt the material for use in biodegradable plastic bricks. The team identified an initial use for the bricks in gardens and landscaping.

All aspects of Gina’s participation in WERC were learning experiences that impacted her professional development; from the paper (which she says her and her team sacrificed an entire spring break to complete, but she has no regrets), to the presentation, to the networking.

“We didn’t realize until we had the chance to reflect, how much it helped us develop as people,” Gina explains.

WERC is commonly completed as an engineering capstone course. Industry representatives who join WERC as judges also have an interest in recruiting promising students into professional positions.
Jerry Roose, Director of North American Environmental Operations at Freeport-McMoRan was a judge for the WERC contest, and talked with Gina at length after watching her present her experiment. From the conversation, Gina learned that Freeport had an office in Norwich, CT, though she initially only knew Freeport as a West Coast-based company.

Jerry asked me to interview for an open position at the Norwich location, which turned into a full-time job. My personal and professional growth and success are directly tied to WERC. I actually wouldn’t be where I am had I not participated.

Gina just celebrated her 3-year work anniversary. She works with an Industrial Hygiene intern who attends Rutgers University in New Jersey. Gina says that she uses what she learned at WERC to directly mentor him in professional development.

In regard to her participation and message to potential participants, Gina explains, “I was the underdog. We were the underdog team going into the WERC, and I think it’s important other students hear this story. I was a good student, but felt worn out by trying to keep up with perfect scores. We ended up winning 2nd place at WERC which was phenomenal and a boost for all of us personally and professionally.”

Bio:

Gina Lombardi is an Environmental Engineer who works for a copper rod mill in Norwich, CT. Rhode Island born and raised, she grew up experiencing all aspects of nature through wooded trails, farms, and beaches, which cemented her love for the environment. Growing up, her father shared his handyman knowledge and included her on any projects he was working on. She excelled at math and science in school which made engineering a logical college pursuit. She attended Roger Williams University in Bristol, RI and graduated in 2015 with a Bachelor’s of Science specialized in Civil Engineering with a minor in Mathematics.