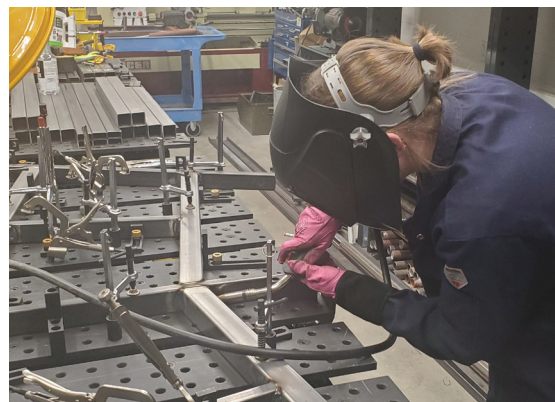


From Steel to Stage: Gretchen Gustafson's Journey into Entertainment Engineering

Gretchen Gustafson is a senior, majoring in mechanical engineering and minoring in entertainment engineering. Already bitten by the theatre bug, she discovered engineering through technical theatre. Gretchen recounts "I often had to take apart lights and build sets when I was in my high school's drama club, and I really enjoyed seeing my contribution come together with everything else on stage."

In UConn's entertainment engineering program, Gretchen found the opportunity to pursue hands-on technical theater projects, as well as traditional engineering classes. One of her favorite projects was building a revolve platform; a turntable that can be integrated into the stage. "When I first asked to learn how to weld, I never thought that a year or so later I would be helping weld an entire turntable. I learned the importance of cleaning and prep work, communication, and collaboration." Due to the collaborative nature of the project, the team quickly learned how to communicate and keep multiple "shifts" of people informed and involved in a project. Reflecting on the project, Gretchen says "it's super rewarding to see now, as the revolve platform has been used for so many shows since then. It's a great example of why I love theatre and entertainment engineering, because I get to see my work enhance a



designer's vision on stage."

Gretchen completed an internship at McLaren Engineering Group this past summer. Her history with McLaren dates back to the spring of her freshman year. She described McLaren as "one of the first examples [she] had seen of a career opportunity that merged both theater/entertainment





and engineering that wasn't a crew or summer stock position, so [she] immediately took interest". To prepare, she immersed herself in drafting and modeling classes, and continued her work on collaborative theatrical projects. In Spring 25, she connected with Bill Gorlin, McLaren's VP of Entertainment Engineering. As a mechanical engineering student interviewing for a structural engineering firm, Gretchen worried about competing

with the civil engineering students. "I knew going into my internship that I would already be behind when it came to structural engineering. UConn's courses did a great job preparing me for the theory, calculations, and technical writing skills, however what really helped me succeed was my experience working in the scene shop. The scene shop is the most useful educational area because it taught me to ask questions, it gave me hands on construction experience, and it taught me how to interact within a creative space as an engineer." Her entertainment project experience, her passion for show business, and her can-do attitude landed her the internship.

The internship proved to be a masterclass in project management and communication. A firm of McLaren's size and scope often has several "hot" (or active) projects at once. Juggling so many tasks required expert collaboration within and across teams. "For me as an intern, it was super helpful to make sure my calculations and thought processes were clear, because it helped me think about the problem and to communicate



my ideas. It also helped the office to give me more useful feedback.” Gretchen says her favorite projects were truss structure designs. Like the UConn revolve, they marked the point when the pieces came together and the big picture made sense. “These projects were towards the end of my internship, and while they didn’t always feel as exciting compared to some of the bigger projects, I noticed that I was finally starting to put together everything I had learned over the summer to complete the project.”



Gretchen has now returned from her internship but her time with McLaren is far from over. She accepted an offer for a full-time position with McLaren and will be starting her new position after graduation. She aims to take her F.E. (fundamentals of engineering) exam during the Spring 26 semester so she can spend her time at McLaren working toward a P.E. (Professional Engineer).

“I would like to stay in the entertainment engineering industry as long as possible, but in the future, I would love to eventually go back to school and become a professor. Many of my goals and achievements would not have come true without my professors like Ed Weingart and Michael Beschta, who always encouraged and challenged me both in class and outside of class.

I would love to do the same and continue to grow and contribute to the field of entertainment engineering.”

“My advice to new students is to try everything and not be scared to reach out and put yourself out there... Good professors want to see their students succeed and be excited about what they are doing, so reach out to those professors and tell them what YOU want to do. And if you don’t know what you want to do, try everything and see what sticks.”