Describe your overall duties/responsibilities as a Welding Engineer:

Every day I direct or consult on machining and welding projects within Argonne. Groups across the lab need solutions for their ongoing projects and will come to Central Shops with these challenges every day. I offer technical input on material selection, weld processes, and machining operations while managing project costs and schedule. Additionally, we ensure that the solutions that each group is seeking meet the quality and safety standards. With many different projects on-site, the variety of challenges presented require innovative solutions combined with a keen understanding of codes and standards.

Explain the skills/abilities that are required for being successful in your role:

The welding physics and metallurgical background that the WE program imparts is fundamental and especially useful when you’re working with new alloys and dissimilar weld processes every day. On top of that, the communication and time management skills are crucial to working on a large team. Having exposure to a variety of industries and situations is key to really contributing to a project -- the perspective that you can bring into a team can often help you stand out.

What advice would you give to students who are considering majoring in Welding Engineering?

Welding Engineering can open a lot of doors for you. I’ve worked at small companies working on cutting edge additive manufacturing companies that lean heavy into R&D, and I’ve had experiences at huge automotive factories working with production teams on cycle time issues. There are so many paths you can take with this degree. If you decide an aspect of one job doesn’t appeal to you, there’s a lot of flexibility within the career across the industries that need our skills and knowledge.