



# Renae Acker

**B.S. in Welding Engineering (2016)**  
**Medtronic, Minneapolis, MN**

## **Describe your overall duties/responsibilities as a Welding Engineer:**

As a welding process development engineer at Medtronic, my primary role is developing and qualifying welding processes to manufacture implantable, life-saving medical devices. Here, I primarily work with laser technologies such as laser welding, marking, cutting, and bonding on bio-compatible materials such as titanium and stainless steel. My day-to-day changes significantly depending on where I am in a project, and can range from bringing in new welding equipment, designing and running experiments, fixturing development, or production support. In addition, I also serve as a project lead on a resistance welding equipment replacement project, where I plan and coordinate with quality engineering, manufacturing, management, and R&D to ensure proper resource allocation and project schedule alignment.

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

Collaboration and communication are absolutely key. I know there's a bit of a stereotype around engineers being introverted and keeping to themselves, but in reality being successful in an engineering role requires coordinating and collaborating across a variety of different teams and being able to communicate clearly. With that, problem solving skills, critical thinking,

and attention to detail are all also incredibly important, and allow you to adapt and learn on the fly when new challenges come up. Honestly, a good engineer is one who hones both their soft skills and their hard skills, as you are using both constantly in your day-to-day work.

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

Keep an open mind and diversify your experiences! Honestly, I had no idea what kind of opportunities were available to me when I stumbled into the Welding Engineering major, but I did have a narrow mindset going in thinking that only a few industries needed welding experts. In reality, welding technology is present in a massive amount of industries, and this degree truly opens doors for a multitude of career paths. In my internships alone, I was able to gain experience in the agriculture, electric vehicle, and medical device industries and each one gave me valuable insight to what direction I wanted to go with my degree. My advice is to simply to seek new experiences whenever you can (especially during internships!), go to career fairs/conferences, and network, network, network.

