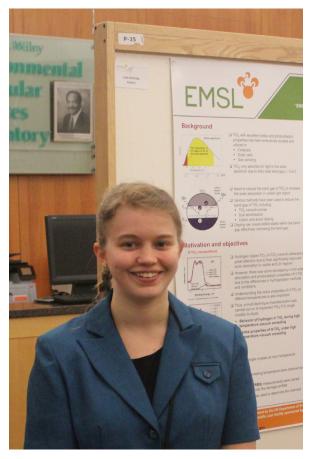
## SPOTLIGHT: THE UNDERGRADUATE RESEARCH EXPERIENCE

## What is your current position and how did you get to where you are?

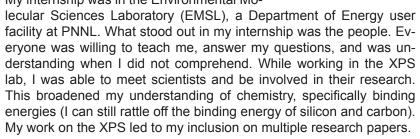
My name is **Ashleigh M. Schwarz**. I started as a high school intern in the X-Ray Photoelectron Spectroscopy (XPS) Lab, and in my senior year of college, I transferred to an electrical engineering internship. I am currently an electrical engineer at Pacific Northwest National Laboratory (PNNL).

## What made you decide to do research as an undergraduate student?

I have always enjoyed problem solving, whether it was fixing music stands in orchestra class or building my own light table for an art project. I wanted to become an engineer, but I was not sure what type of engineer I wanted to be. In school, I loved learning about how different elements interact. When there was a chance to apply for an internship at PNNL, I hoped to end up in a chemistry-related position. I ended up in surface analysis and eventually became a subject matter expert on operating the XPS. This led me to working on different research projects with outstanding colleagues and mentors. Over the years, I was excited to see what research and engineering looked like as a career.



As an undergraduate researcher, were there particular incidents that stand out? My internship was in the Environmental Mo-



One of my favorite incidents started when I was doing spectrum analysis on a recent XPS run. A scientist came in and announced that he'd had an epiphany. He figured out a new way of testing batteries with XPS. To help make his epiphany a reality, I spent a year or so working on the team that redesigned the sample holder for the XPS system. The new holder allowed us to charge and discharge a battery and collect data on the chemistry involved. Also, I got to be part of the discussions and implementation of testing the samples. I enjoyed working on a project from start to finish. It is exciting to see the process from inception to publication.

## Any final thoughts?

Starting as an undergraduate student was a tremendous experience. It helped me to develop skills in creating posters and presentations along with confidence in speaking and writing. It gave me a chance to experience what it was like working in my chosen field in a learning environment. I am where I am today because of that internship.

