

# NEUTRON SCIENCES:

## JOIN A WORLD-CLASS ORGANIZATION AT OAK RIDGE NATIONAL LABORATORY

### Who we are and what we do

Oak Ridge National Laboratory (ORNL) operates two of the world's most powerful sources of neutrons for research: the High Flux Isotope Reactor (HFIR) and the Spallation Neutron Source (SNS). Because neutrons have no electrical charge, they easily and safely pass through a sample, revealing information about the material's structure and properties. Discoveries from neutron research at ORNL help scientists from all over the world answer big science questions and spur countless innovations such as stronger glass for mobile devices, drugs that more effectively treat diseases, more reliable aircraft and rocket engines, cars with better gas mileage, and safer, longer-lasting, faster-charging batteries.

Neutron Sciences offers diverse career opportunities with positions as scientists, engineers, technicians, human resource business partners, accountants, science communicators, skilled craft workers and administrators, to name a few. ORNL's team of talented staff collaborate to help fuel scientific discoveries and technical breakthroughs needed to realize solutions to our future challenges in materials science, clean energy, biology, chemistry, quantum and so much more.

### Living and working here

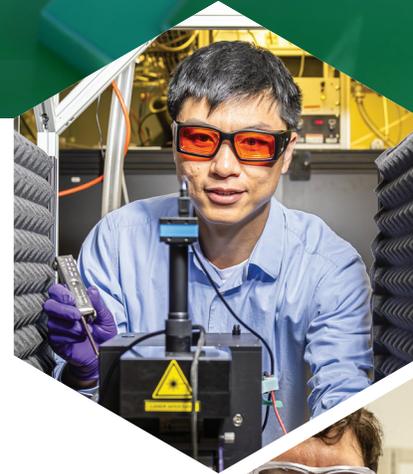
Join world-class talent by working at ORNL, which draws thousands of researchers and visitors every year. A vibrant and welcoming scientific community, ORNL embraces the pursuit of innovative ideas and invests in its people, its most important asset.

Located in East Tennessee, in the foothills of the beautiful Great Smoky Mountains, ORNL's campus is just one hour from the scenic national park. Within a day's drive to all major cities on the East Coast, ORNL provides the best of both worlds: proximity to the great outdoors and urban centers with diverse cultural attractions. The city of Oak Ridge, Tennessee has 150 miles of shoreline for water recreation, rowing and boating; and nearby Knoxville, Tennessee is home to the thriving research campus of the University of Tennessee and a historic downtown known for its dining, theaters, shopping, and abundance of cultural and musical festivals. Public schools in Oak Ridge and Knoxville are excellent and there are many wonderful neighborhoods in this area.

### For more information

To learn more about Neutron Sciences jobs, visit [jobs.ornl.gov](https://jobs.ornl.gov)

To learn more about Neutron Sciences at ORNL, go to [neutrons.ornl.gov](https://neutrons.ornl.gov)



# DON'T JUST TAKE OUR WORD FOR IT:

LET OUR STAFF TELL YOU  
WHY THEY LOVE ORNL

## Changwoo Do, Neutron Scattering Scientist

"I help scientists run neutron scattering experiments on the EQ-SANS beamline. I also conduct my own research in soft matter science. Working at Oak Ridge National Laboratory means you will get to experience excellent colleagues, administrators, and supporting staff at a best-in-class facility surrounded by nature. Give us a try -- you won't regret it."



## James Torres, Neutron Scattering Instrument Scientist

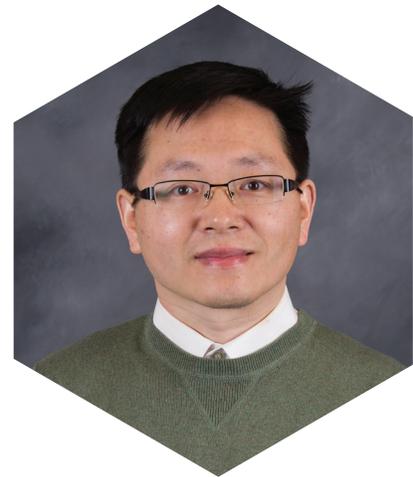
"The work here is rewarding, and my team members are thoughtful, diverse and productive. There are many opportunities to succeed through access to world-class resources and research. By far, ORNL is an excellent place to work. Not to mention the area is a mix of city, suburban and rural life close to stunning surroundings. And the cost of living is relatively low."



## Lilin He, Neutron Scattering Scientist

"I serve users from all over the world who use neutron scattering to characterize materials. Specifically, my scientific curiosity revolves around characterizing material microstructures and understanding their properties -- especially through neutron scattering techniques."

ORNL provides environments for me to perform such experiments in a friendly, collaborative atmosphere. We have many people from a variety of backgrounds working together to tackle our greatest challenges."



## Rachel Woodrum, Scientific Associate

"My entire team is very easy to get along with, including my boss and my boss's boss. Everyone is so nice and helpful. No matter what, any problem can be solved. I also love being on the edge of scientific discovery and having a hand in making science successful."

My advice would be to apply until you get in and take any position offered to you. It is an amazing place to work, and no matter where you land, you will enjoy it."



## Jared Walden, Power Electronics Engineer

"The mission of the Spallation Neutron Source provides me with impactful and interesting work as an electrical engineer, which are two important metrics I hold tightly. Whom I work with also makes the work enjoyable. And the East Tennessee area is a great place to live and raise a family!"

ORNL has many interesting career opportunities in a variety of fields, and this work environment will allow you to grow intellectually and professionally."





## Christina Hoffmann, Neutron Scattering Scientist

"My work crosscuts a range of opportunities and responsibilities. It includes recruiting users, reporting neutron experiment results at conferences, performing neutron scattering experiments and publishing results, organizing sessions at professional society meetings, training users, testing sample environments, educating students and much more.

The learning environment here is stimulating in a way that helps develop creativity and at the same time maintains operational rigor. ORNL has amazing institutional knowledge. If you join us, ask as many questions as possible and join employee resource groups so that you get to know people and learn about different opportunities."

## Alan Barker, Nuclear Instrumentation & Controls Engineer

"I develop control system software for Oak Ridge National Laboratory's High Flux Isotope Reactor. HFIR is used exclusively for research and operates at 85 megawatts at full power.

With over 6,000 staff, ORNL is a hub of diverse and exciting projects. From large international collaborations to smaller-focused endeavors involving just a few researchers, there's something for everyone. ORNL boasts world-class experimental facilities that allow you to bring your ideas to life — not just theorize about them on paper. These facilities empower researchers to tackle challenging science and engineering projects across various domains. Throughout my time at ORNL, I've had the privilege of contributing to projects spanning national security, fusion energy, advanced transportation, and now, neutron science. Each project has provided me with invaluable experience and the opportunity to make a lasting impact.

ORNL has a strong safety culture and invests in its staff with training and growth opportunities. You can maintain a healthy work/life balance and feel supported while contributing to impactful projects that address critical national challenges. I'm constantly learning and growing alongside some of the brightest minds in the world."



## Jim Kohl, Senior Computer Scientist in Neutron Data Acquisition

"I help capture all the raw neutron data from the experiments, organizing it as usable data that can enable innovative scientific discovery. My wife likes to describe my job as a scribe for a modern digital Library of Alexandria, but, to me, my humble task is more like trying to catch millions of neutron events with a small handful of tiny baseball gloves.

I have enjoyed working at Oak Ridge National Laboratory for over 30 years now. There is always an endless breadth of interesting research going on here with many new challenges and adventures waiting around each corner. I have never grown bored in all this time, and I've had the pleasure of working closely with many world-class researchers and colleagues. ORNL has the perfect balance of basic and applied research where innovative ideas can be nurtured and grown from concept to useful technology and new scientific understanding.

I highly recommend expanding your career by joining the ORNL team. It is an exciting and vibrant workplace with many golden opportunities and in such a beautiful part of the country. East Tennessee is a pleasant and affordable place to live and raise a family. Working for DOE's Office of Science for over 40 years now has rewarded me with a satisfying career working on diverse projects in a variety of scientific explorations and engineering achievements."



## Fahima Islam, Neutronics Scientist

"Every day as I immerse myself in the exploration and understanding of how neutrons can be manipulated, how their interactions with samples can be predicted, and how they are detected, I am contributing to the development of a world-class neutron scattering instrument. This journey not only deepens my scientific knowledge but also broadens my perspective on various aspects of life. Working at the Spallation Neutron Source at Oak Ridge National Laboratory offers me an unparalleled opportunity to expand my capabilities in numerous ways, both professionally and personally."



## Jean Bilheux, Neutron Scattering Instrument Scientist

"We work with many researchers from very different fields, so every day is different. One day you work with people from a museum and the next day they might come from industry or a university."

"If you want to meet brilliant people, work on exciting experiments and stay on top of your game, why not come to one of the top science labs in the world?"



## Stephanie Hembree, User Assistant

"From an operations perspective, I help ensure users arrive at the beamlines science-ready. Not having a scientific background, it is very fulfilling knowing my operational contribution helps advance life-changing science."



## Huibo Cao, Neutron Scattering Scientist

"ORNL is a great place to launch your career and make scientific achievements. You will find great opportunities to work on frontier sciences with top research groups, as I have in my research on quantum and magnetic material/physics and as a point-of-contact for DEMAND, a single crystal neutron diffractometer (an instrument used for neutron scattering)."



## Matthew Loyd, Detector Scientist

"I love being able to work on the forefront of a field as exciting as neutron science. Oak Ridge National Laboratory has two world-class neutron facilities, and I am surrounded by experts in the field of neutron scattering. Every day is an exciting challenge that drives my growth as a scientist."

In my role, I develop advanced neutron detectors to improve the capabilities of our user instruments. Advancements in detector technology allow for new science techniques and faster measurements, which provide for a better user experience."



## Jon Leiner, Neutron Optics and Polarization Scientist

"I enjoy being immersed within the expertise and resources here to develop and enhance new tools to look at the quantum aspects of materials. Oak Ridge National Laboratory has an atmosphere of excitement that comes from working on some of the biggest challenges in neutron science."

