

- Sandia National Laboratories is a global leader in cyber security with an annual government investment of over \$150M per year
- Five decades of making nuclear weapons safe and secure from constantly evolving, sophisticated threats
 - Sandia developed a deep understanding of digital system (cyber) security and reliability through decades of experimentation, testing, and validation
- For over four decades, cyber security has been an integral part of the wide range of national security systems that we build for the US Government
 - Trustworthy monitoring technologies for nuclear treaty verification, even when placed in untrusted environments
 - Battlefield technologies for the Department of Defense
 - Counter terrorism technologies for the Department of Homeland Security
- For over three decades, Sandia has been developing and operating secure networks for our Department of Energy missions
 - In many cases our Ph.D. researchers divide their time between network security analysis and developing tools to improve and automate that security analysis
- For over three decades, Sandia has been providing the US Government with dedicated cyber security expertise
 - Threat and vulnerability analysis
 - Adversarial-based assessments
 - Specialized digital forensics
 - Specialized data analysis tools
 - Technologies and approaches that address sophisticated threats
- Sandia partners with Universities and other research laboratories to address fundamental research questions
 - Security metrics
 - Privacy preserving data analytics
 - Bringing physical and cyber risks under a single risk management framework
 - Cyber security approaches that can hand the advantage to the defender
- Sandia's Center for Cyber Defenders (CCD) is an internship program, structured like a medical residency program, that operates in close partnership with several universities
 - Over 400 student interns since 1998
 - All participants develop cyber security tools or assist in security assessments
 - Serves as a pipeline for key cyber security roles at Sandia, various government agencies, and industry
- Sandia's Cyber Engineering Research Laboratory (CERL) brings multi-disciplinary teams into a collaborative environment to address the most difficult cyber challenges
 - Building the safest Internet economy on Earth requires skills that span human performance to information technology to materials science.
 - CERL is designed to bring universities, industry, and government together to solve the most difficult cyber security problems