Auburn Cyber Research Center (ACRC)
Distinguished Lecturer Seminar
The National Need for Software Understanding

When: Friday March 22nd 2024, 12:00 – 12:50 PM

Where: Lowder Hall 19 or live streamed via Zoom: https://auburn.zoom.us/j/87394010974

Abstract: Society is presently facing extensive, unmeasurable risk to our national security and critical infrastructure (NS&CI) missions through our widespread dependence on largely inscrutable third-party and legacy software. In recent decades, software has been integrated into every facet of daily life and government, including NS&CI missions. Historical choices on how to leverage software widely have resulted in economic opportunity and prosperity, but also a tremendous gap between our total dependence on software for NS&CI missions and our extremely limited capability to understand and validate that software. Despite rigorous testing, software typically contains unexpected behavior that can imperil the missions which rely upon it. This lecture will discuss the need for understanding software, trace the technical characteristics of software that make this challenging, and conclude with some thoughts about the research directions that software analysis needs to explore in order to address this vital problem.

Short Bio: Dr. Douglas Ghormley started at Sandia National Laboratories in 1998 after receiving a BS in Computer Engineering from CMU and a PhD in Computer Science from UC Berkeley. At Sandia, Doug has spent a career working on cyber-related challenges for a variety of national security missions. He is a Senior Scientist, specializing in cybersecurity. Currently, Doug's focus is on the cyber challenges posed by rapid adoption of third-party software into nearly every aspect of critical infrastructure and national security. He is leading the Rapid Analysis of Mission Software Systems (RAMSeS) team at Sandia, a research group exploring static analysis approaches to meet these challenges.

Attendance: Attendance is free, but to ensure sufficient seats, food, and beverages, for in-person attendance registration is mandatory by 11:59 PM CDT on Wednesday March 20th using either the QR code on the right or the link: https://aub.ie/ACRC-Ghormley-Seminar Complimentary lunch service starting at 11:45 AM for registered attendees only!