VirginiaTech
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Computer Science Seminar Series
National Capital Region

Recent Cyber Security Events and Future Research Directions

Speaker: Dr. Robert Mitchell
Sandia National Laboratories
Friday, February 17, 2017
1:00PM- 2:00PM, NVC T3

Abstract

The trend of increasingly frequent and sophisticated cyber attacks continued in 2016. Last year brought many complex attacks on new targets that belligerents staged from novel platforms using previously unseen tactics. These attacks are a call to the research community for relevant, impactful and transferable research. For this talk, I compare and contrast some of the highest profile, publicly acknowledged, cyber attacks of the past year. I highlight the target of interest, brand of attacker, primary objective, overall impact, key techniques employed and defensive lessons learned for each of these incidents. I trace these cyber attacks of the past year to the research calls for the coming year: the topics with the most urgent need for investigation along with the most effective research techniques. The audience will take away an increased and fact-based awareness of last year's most influential cyber attacks, and a vision of the emerging cyber security research areas and methods.

Biography

Robert Mitchell is currently a member of technical staff at Sandia National Laboratories. He received the Ph.D., M.S. and B.S. from Virginia Tech. Robert served as a military officer for six years and has over 10 years of industry experience, having worked previously at Boeing, BAE Systems, Raytheon and Nokia. His research interests include linkography, moving target defense, computer network operations, network security, intrusion detection and cyber physical systems. Robert has published 19 peer reviewed articles.