



Matthew Carpenter is a Senior Principal Security Researcher with GRIMM (SMFS, Inc.) as head of Research and Innovation, performing deep security research on traditional computing systems, embedded devices, the Internet of Things, and Control Systems of all flavors.

Matthew's primary expertise is in reverse engineering, vulnerability research, exploit weaponization, overall hacker techniques, developing training courseware, and teaching. He has enjoyed exploiting hardware, software/firmware, radio, and communications protocols, and currently specializes in safety sectors such as Automotive, Aerospace, ICS/SCADA, Advanced Metering Infrastructure, telecom, and traditional computing. Applying these skills to non-exploitation areas has uniquely positioned Matthew to provide insight and impact in risk

analysis/mitigation, forensics engineering, malware analysis, and penetration testing at all levels (hw/sw/net/web/physical).

Matthew has presented at numerous Automotive, Aerospace, and ICS conferences, co-chaired the SANS Automotive CyberSecurity Summit, was on the Program Committee for the automotive cybersecurity conference "escar USA", regularly supports Cyber-Auto Challenge and Cyber-Truck Challenge, and maintains a posse of equally scary secret squirrels. He is the former vice-chair of the UCAIUG AMI-SEC Task Force and SG Security. He leads the Vulnerabilities team for NIST Cyber Security Coordination Task Force developing NISTIR-7628 and Cyber Physical Systems (CPS). He was a member of the Advanced Security Acceleration Project for the Smart Grid (ASAP-SG) and was the Red-team lead for the Advanced Security Acceleration Project (AMI-SEC/ASAP). Additionally, he has ongoing involvement with security organizations in the Michigan area, including the Michigan Cyber Range, the Michigan State Police, CyberPatriot, and the West-Michigan Cybersecurity Consortium (WMCCSC) where he has served as a Red Team Captain for their annual Red/Blue events for many years, and is a member of the Information Systems Security Association (ISSA) and InfraGard. Matthew also sits on advisory boards for multiple colleges.

Matthew is an entertaining and informative presenter/trainer and is a repeat speaker at many Hacker/ICS/SCADA/Automotive conferences, domestic and abroad.