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CYBERSECURITY MINI-GAMES: FIGHT THE CYBER GREMLIN! [WORKSHOP]

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DESCRIPTION

Educating users on best practices in cybersecurity is critical, yet traditional training methods often fail to engage learners or build practical skills. This workshop presents an innovative approach: a series of interactive cybersecurity mini-games designed to take anywhere from 10 to 20 minutes per mini-game, teaching essential skills in user management, firewall configuration, network traffic analysis, vulnerability patching, file backups, malware detection, and more.

Participants will face a persistent gremlin “ShadowShell” adversary who tests their defenses through scenario-based tasks. The mini-games come in 3 levels of difficulty, beginner, intermediate, and advanced.

By immersing players in short scenario-based tasks, the workshop promotes strategic thinking and hands-on problem-solving in a low-pressure environment while breaking up large, complex tasks into manageable bite-size chunks.

WORKSHOP FORMAT

- Duration: 10 to 20 minutes – depending on skill level and mini-game
- Audience: Educators, trainers, and cybersecurity professionals
- Materials Needed: Participants will need a laptop with internet access. Workshop organizers will provide access to the mini-games platform.

AGENDA

- Introduction (1-2 minutes)
- Demo and Hands-On Gameplay (10-20 minutes)
- Debrief and Discussion (5 minutes)

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AUTHOR



Sebastian Hayes is a graduate student in Cybersecurity at Brigham Young University, where he serves as a teaching assistant for IT and cybersecurity courses and a research assistant in the Cybersecurity Research Laboratory. He previously served two terms as president of the Network Engineering Student Association and was program director for Kids Who Code, a community outreach program. He has competed in national competitions, earning 1st place in the NCAE CyberGames regionals (2022, 2023) and top finishes in the National Cyber League CTF (3rd in Fall 2023, 2nd in Fall 2024). He has helped develop and run the BYU Public CTF (2022–2025), STEM Camp CTF (2023), and Cybersecurity Camp CTF (2022–2023), and currently coaches BYU’s NCAE CyberGames teams (2024–present).