Ryan Miller

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Education

California State Polytechnic University, Pomona Pomona, CA
Bachelor of Science, Computer Science - 3.97 GPA *2023 - 2026*

Experience/Competitions

National Centers of Academic Excellence Cyber Games (2nd Place Nationals) April 2024
Collegiate level defense focused cybersecurity competition against an active red team
- Organized multiple practice sessions a week, developed a team game plan, voted MVP and Most Improved
- Set up a DNS server using bind9 with forward and reverse zones for custom internal and external IPv4 addresses
- Implemented Iptables as a egress firewall to prevent unauthorized connections, threat hunted existing backdoors
- Hardened linux server by changing existing passwords, and removing unnecessary log on methods

National Cyber League (Top 7% Individual Game) April 2024
Cybersecurity CTF competition with over 7000 competitors
- Analyzed Network Traffic with Wireshark to identify a path of attack and inspected different formats of log data
- Discovered and exploited web vulnerabilities using Burp Suite software and cracked passwords hashes
- Fixed broken metadata with hex editors and unvieled steganography data hidden within files

Bronco Hacks (1st Place, Cybersecurity) February 2024
24 hour long coding competition hosted in Pomona
- Implemented Python to train OpenAI to determine whether emails are non-malicious, suspicious, or malicious
- Uses Tkinter to create a simple GUI easy input and output for the average non technically inclined employee

Hivestorm October 2023
Collegiate cyber defense competition securing Windows/Linux machines by company policy
- Dealt with Linux virtual machines configuring permissions, disabling unwanted services and removing malware
- Configured new users and assigned them with their respective groups, permissions, and SSH log in
- Set up host-level firewall rules using Uncomplicated Firewall(UFW) and monitored network traffic

Students with an Interest in the Future of Technology August 2023 – Present
Director of Academy
- Organized and scheduled weekly meetings and workshops to teach security to an audience of over 30 students
- Helped develop and organize events including Tech Symposium, a student-run cybersecurity conference that allows high school and collegiate students to network with industry professionals

Projects

Custom Capture The Flag Challenges | *C, Python, Reverse Engineering* March 2024
- Developed Reverse Engineering challenges for club events targeting a range of skill levels
- Had users de-compile different code languages and solve a custom encryption to find the flag
- Hosted on a temporary CTFd website for the duration event providing points and a leaderboard

Digital Dash | *Unity, C#, Android* December 2022
- Side scrolling infinite runner game made using Unity in C#
- Dealt with scaling to different screen sizes, mobile controls, unity collaboration, custom music, animation

Jetpack Joyride Recreation | *Java, Greenfoot* April 2022
- Recreated of Jetpack Joyride in Java using the Greenfoot game engine
- Implemented animation, music, scaling difficulty, random and tracking obstacles, and a continuous game mode
- Used both coins and score to mark the players progress and kept track of the users high score between runs
- Currently published on the Greenfoot website with open-source code: https://www.greenfoot.org/scenarios/30989/

Technical Skills

Languages: Java, C#, Python, MIPS Assembly
Operating Systems: Ubuntu 22.04, Debian 10/11, CentOS 7, Windows Server 2019, Windows 10, Mac
Developer Tools: Git, Github, Jenkins, Unity
Security Tools: Wireshark, Burp Suite
Services: FTP, SSH, MySQL, DNS, UFW, Iptables, Apache2, Bind9