

# Jay Hayward

github.com/JayHayward

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## Cybersecurity Engineer

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**Languages** - C, C++, Python, Bash, Git, Linux/Unix CLI, Powershell

**Tools** - Nmap, Wireshark, Metasploit, Windows Active Directory, Hashcat, John, Splunk, Ghidra

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## Professional Experience

**Staples – SOC Engineer Intern** (June 29, 2020 - August 21, 2020)

- Conducting Purple Team exercises to test the functionality of our threat detection systems, including DNS tunneling, SMB remote command execution, and Man-in-the-Middle, among others.
  - Utilizing Windows Active Directory architecture and Powershell scripting to identify and exploit vulnerabilities in various systems including Windows servers and clients in our enterprise network.
  - Conducting penetration testing leveraging the MITRE ATT&CK Framework, focusing on Discovery, Lateral Movement, and Defense Evasion.
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## Education

University of Colorado Boulder

Bachelor of Arts, Computer Science

Graduation Date: May 7, 2020

Major Specific GPA: 3.860

### Academic Achievements

- Society of Telecom Fellowship (2020)
- National Technical Honor Society (2014)

### Extracurricular Activities

- CU Cyber Club: Executive Board (January 2017 – May 2020)
- Collegiate Cyber Defense Team (September 2017 – March 2020)
- Science Bowl (2011-2014)

### Major Specific Courses

- Advanced Penetration Testing
  - Digital Forensics
  - Linux System Administration
  - Cybersecurity for a Converged World
  - Algorithms
  - Operating Systems
  - Data Science
  - Software Development
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## Events and Competitions

- **Collegiate Cyber Defense Competition** - Won 3rd place, Rocky Mountain Regional competition
  - **HackCU IV** - Developed an algorithm that tracks and recognizes varying heart rate patterns
  - **HackCU V** - Developed a program that introduces CS students to capture-the-flag challenges
  - **Facebook Hackathon 2018** - Won 2nd place for a system that reroutes traffic through a network
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## Relevant Skills and Experience

- **Collegiate Cyber Defense Competition** - CU Blue Team Strategic Defense Coordinator  
The Blue Team is responsible for keeping numerous web services running against a team of professional penetration testers. I would run constant monitoring and keep a detailed record of any breaches to our system. I was responsible for effectively communicating my reports to a non-technical administration.
- **CU Cybersecurity Club** - Social Media and Marketing Executive  
I was responsible for maintaining a social presence for CU's Cybersecurity Club, which involves giving presentations and generating interest for cybersecurity among students. In the club environment I would help less technically oriented students develop useful skills in a friendly and accommodating setting.
- **Advanced Penetration Testing** – Developing an in-depth understanding of vulnerabilities and exploits  
In weekly assignments I would be presented with one or more machines in a private network, where used tools and scripting to identify and exploit various vulnerabilities to gain user and root access. I analyzed malicious scripts and used reverse-engineering to determine their purpose and function, as well as how to detect them in various forms and systems.