

# Hunter J. Gregal

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## EDUCATION

Champlain College*, Burlington, VT	May 2017
Bachelor of Science in Computer Networking and Cybersecurity	3.9 GPA
<ul style="list-style-type: none"><li>• Specialization in Cybersecurity, Minor in Digital Forensics</li><li>• President, Computer Networking and Information Security Club</li><li>• ITS Division Senator, Student Government Association</li></ul>	

## TECHNICAL SKILLS

- Bash, Java, PHP, Python (preferred), C (preferred), x86, ARM
- Linux Internals (userspace and kernel)
- Web Application Exploitation
- Fuzzing
- Vulnerability Research (binary and opensource)
- Exploit weaponization and development
- Penetration Testing Methodologies
- Reverse Engineering (IDA and Ghidra)
- Virtual Environments
- Debugging

## PROFESSIONAL EXPERIENCE

Grayshift, Remote	
Android Vulnerability Researcher	Nov 2020 – Present
<ul style="list-style-type: none"><li>• Performed independent and team-based vulnerability research on various Android mobile devices. Targets included various models and chipsets</li><li>• Weaponized discovered exploits and elevated from research proof-of-concept to ready-to-deploy asset</li><li>• Reversed engineered and audited software for bugs across various ARM exception levels and boot stages – including but not limited to:<ul style="list-style-type: none"><li>○ PBL / bootROM</li><li>○ Secondary boot loaders: Aboot, Sboot, UEFI-based, U-boot based</li><li>○ Trustzone kernel and applications</li><li>○ Android HLOS kernel and userspace</li><li>○ Modem firmware</li></ul></li></ul>	
Raytheon CODEX/SI, Arlington, VA	June 2017 – Nov 2020
Cyber Engineer	
<ul style="list-style-type: none"><li>• Performed mission-critical vulnerability research on a large variety of targets for customers. Technologies include:<ul style="list-style-type: none"><li>○ Windows Applications</li><li>○ Embedded *nix based devices</li><li>○ Modern Android-based systems</li><li>○ ARM, x86, MIPS, POWERPC, C, C++ applications and targets</li><li>○ Closed source binaries, services, and system</li><li>○ Popular opensource and widely used software</li></ul></li><li>• Developed fully weaponized exploits in C and Python ready for field use and integration into existing frameworks</li><li>• Discovered and implemented novel persistence techniques across various hardware devices and architectures</li><li>• Performed live demos of developed exploits and tools for customers</li></ul>	
NuHarbor Security, Burlington, VT	June 2015 – 2017
Security Engineer; Cybersecurity Intern	
<ul style="list-style-type: none"><li>• Conducted both network and application penetration tests for clients</li><li>• Assisted in conducting professional security audits and assessments for clients against frameworks such as ISO 27001, ISO 27001, and NIST Cyber Security</li><li>• Drafted detailed technical reports with findings from penetration tests and assessments</li><li>• Wrote catered Proposals in response to Request for Proposals (RFPs) for government and private entities</li><li>• Developed tools and programs utilizing Python, Python-Flask, PHP, and bash</li><li>• Performed vulnerability assessments of web applications using various technologies such as Python, Java, PHP, .Net</li></ul>	

Senator Patrick Leahy Center for Digital Investigation, Burlington, VT

September 2013 – May  
2015

## Network Administrator

- Managed a Windows domain controller with approximately 50 users
- Tasked with maintaining both a research network and an air-gapped forensics network
- Deployed and maintained multiple virtual server environments (ESXi)
- Oversaw a project team of 3 student researchers working on implementing distributed hash-cracking solutions
- Built and deployed an internal phishing campaign audit on 50+ employees
- Assisted in creating compressive documentation for user policies
- Diagnosed/fixed computer hardware and software related issues
- Implemented automated data backup solutions
- Aided in a senior research project that investigated large-scale deployment of Google Rapid Response (GRR)

(Older work history available upon request)

**Notable ACHIEVEMENTS and ACTIVITIES**

1st Place in "Hack-A-Sat" CTF	2020
<ul style="list-style-type: none"> <li>• Won Hack-a-Sat finals along with my team "PwnFirstSearch" (PFS).</li> </ul>	
Unofficial 1 <sup>st</sup> place in PicoCTF 2019	2019
<ul style="list-style-type: none"> <li>• Discovered and reported vulnerability in competition infrastructure allowing me to steal all flags</li> </ul>	
Defcon 26 Finals, Las Vegas Nevada	2018
<ul style="list-style-type: none"> <li>• Qualified for and competed in Defcon 26 CTF Finals with the team "Spaceballs"</li> </ul>	
MimiPenguin (CVE-2018-20781)	2017
<ul style="list-style-type: none"> <li>• Researched and developed popular pentesting tool "MimiPenguin".</li> </ul>	
North Eastern Collegiate Cyber Defense Competition, University of New Hampshire	March 2016, '15, '14
<ul style="list-style-type: none"> <li>• Tasked with maintaining and defending a network and its services from a team of industry professionals</li> <li>• Won 3<sup>rd</sup> place along with 7 other team members (2016)</li> <li>• Won 2<sup>nd</sup> place along with 7 other team members (2014)</li> <li>• First Freshmen student to compete on the Champlain College NECCDC Team</li> </ul>	
Other notable Capture the Flag Competitions	2013 - Present
<ul style="list-style-type: none"> <li>• Compete in Capture the Flag Cybersecurity Offensive Competitions building teamwork and problem solving skills in a fast paced environment – keeps knowledge up-to-date and relevant</li> <li>• Events include: CSAW, PlaidCTF, Google CTF, TokyoWesterns, OCTF, Hitcon, and more</li> <li>• 1<sup>st</sup> Place SarCTF 2020 (PFS)</li> <li>• 25<sup>th</sup> Place Defcon CTF Qualifier 2020 (PFS)</li> <li>• 3<sup>rd</sup> Place Byte Bandits CTF 2020 (PFS)</li> <li>• 4<sup>th</sup> Place SpamAndFlags 2020</li> <li>• 5<sup>th</sup> Place B01lers CTF 2020 (PFS)</li> <li>• 1<sup>st</sup> Place Blaze CTF 2019 (Nasa Rejects)</li> <li>• 2<sup>nd</sup> Place Sunshine CTF 2019 (Nasa Rejects)</li> <li>• More available upon request</li> </ul>	
Student Employee of the Year	2015
<ul style="list-style-type: none"> <li>• Received Champlain College's first Student Employee of the Year reward</li> </ul>	

\*Designated a National Center of Academic Excellence in Information Assurance Education by the National Security Agency and the Department of Homeland Security.