

# Matthew Weeks

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<b>Honors</b>	Speaker, Black Hat DC, DEF CON, Derbycon, CanSecWest, OPCDE, HackCon; Led top team in state, 3 <sup>rd</sup> school in the US in the ACM International Collegiate Programming Contest-East Central region. 1 <sup>st</sup> , 1 <sup>st</sup> , 2 <sup>nd</sup> , and 2 <sup>nd</sup> place annual Cedarville Programming Competition; National Merit Finalist; Valedictorian, USAF Undergraduate Cyber Training; Valedictorian, Advanced Course in Engineering Cyber Security; Achievement Medal; Commendation Medal
<b>Skills</b>	Programming and reverse engineering C++, Java, C, Ruby, x86 and x64 assembly, Python, JavaScript, and PHP; intrusion response; exploit development; Speaking and writing skills; Organizational/Leadership skills; TS/SCI
<b>Experience</b>	
06/14-Present	<b>root9B</b> San Antonio, TX <i>Senior Research and Development Scientist</i> <ul style="list-style-type: none"><li>• Leading root9B's R&amp;D arm; tackling today's hardest technical problems and establishing a vision for the future</li><li>• Application security and vulnerability analysis, exploit development, cryptanalysis, hunting, malware RE</li><li>• Anonymity networks, highly autonomous systems, operational techniques, policy analysis, cloud security</li></ul> <i>Director, Emerging Technologies</i> <ul style="list-style-type: none"><li>• Built a small team focused on rapid capability development, grew to support operations &amp; product development</li><li>• Pioneered memory-resident malware and credential assessment research, created unparalleled Orkos software</li></ul>
05/10-06/14	<b>United States Air Force – AFCERT</b> San Antonio, TX <i>Deputy Chief, Weapons and Tactics, 33rd Network Warfare Squadron (Captain rank)</i> <ul style="list-style-type: none"><li>• Created 15 new tactics and techniques for combating network intrusions</li><li>• Wrote numerous tools to identify, track, manipulate, and remove custom malware and targeted attackers</li><li>• Planned and led Defensive Cyber Operations; directed investigations tracking down network intrusions</li></ul> <i>Officer-In-Charge, Intrusion Forensics, 33rd Network Warfare Squadron</i> <ul style="list-style-type: none"><li>• Reverse-engineered over 70 malicious samples, including Java, PDF, and browser exploits and malware</li><li>• Distinguished Graduate of Undergraduate Cyber Training and Intermediate Network Warfare Training</li><li>• Proposed and implemented numerous security improvements USAF-wide</li></ul>
06/10-06/14	<b>Metasploit Project</b> <i>Open-Source Security Software and Exploit Developer</i> <ul style="list-style-type: none"><li>• Writing client-side and privilege escalation exploits, persistence tools, and code injection techniques</li><li>• Attacks targeting Mozilla Firefox, Microsoft Office, Windows, McAfee, and Metasploit counterattacks</li><li>• Writing shellcode, payloads, DHCP and PXE servers, monitoring capabilities, and graphical user interface</li><li>• Maintaining Remote Procedure Call and GUI interfaces</li></ul>
06/08-08/08	<b>National Security Agency</b> <i>Web Development and Visualization</i> <ul style="list-style-type: none"><li>• Created a design and software interfaces for the display of geographic site information in Google Earth and Google Maps, displaying an overview of active topics and the NSA's use of its resources to respond to them</li><li>• AJAX programming with multiple databases and dynamic handling of large amounts of content</li><li>• Also created student website and improved the intern program website in style, ease of use, and readability</li><li>• Top Secret / SCI clearance</li></ul>
05/07-08/07	<b>United States Air Force Institute of Technology</b> Dayton, OH <i>Network Protocol Research</i> <ul style="list-style-type: none"><li>• Proposing and implementing protocol enhancements improving TCP performance in hostile environments</li><li>• Analyzing, testing, and rewriting existing research models</li><li>• Optimizing loss detection/recovery with existing congestion control algorithms</li></ul>
07/06-08/06	<b>SC Johnson and Son, Inc.</b> Racine, WI <i>Contract Database Programming</i> <ul style="list-style-type: none"><li>• Developed database organization and user interface to meet department needs</li><li>• Wrote program to automatically handle data conversion and import</li><li>• Wrote code to perform detailed searches and handle different outputs and program flow</li><li>• Created complete documentation of database for users, administrators, and developers</li></ul>
<b>Education</b>	
May 2010	<b>Cedarville University</b> Cedarville, OH <i>Bachelor of Science Mathematics and Computer Science GPA: 3.9</i> Minor in Bible
2005-2006	<b>University of Wisconsin-Parkside</b> Racine, WI 32 credit hours course work in Mathematics, Computer Science, and German GPA: 4.0