

Rowan Hart

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Education

Purdue University, West Lafayette IN

December 2020

Bachelor of Science in Computer Science

CGPA: 3.49/4.0

Clearance

- Active DoD Top Secret Security Clearance

Technical Skills

- Linux, Windows, and MacOS hardening, vulnerability analysis, incident response, forensics
- C++, C, Java, Python, Lua, Shell scripting, Javascript, Vue.js web development
- Reverse Engineering, Exploit development, GTK interface development
- VMWare ESXi Management, Server and network administration, Docker development and deployment
- IDA Pro, Binary Ninja plugin development, Angr symbolic execution development

Relevant Experience

- **Purdue University Undergraduate Research Assistant** **January 2020 - Present**
 - Developed automated exploit rehosting tools using the angr symbolic execution framework
- **Purdue University Undergraduate Teaching Assistant** **August 2019 - Present**
 - Maintain the codebase for the code standard linter for C programming courses
 - Taught and assisted students with C programming and debugging skills
 - Developed project specifications and handouts, project and solution source code, and automated test cases
- **Northrop Grumman Xetron** **May 2018 - August 2020**
 - Performed reverse engineering of operating system internals and embedded systems, developed large C/C++ and Python projects
 - Developed an IDA Pro plugin for automated control flow analysis and path emulation for vulnerability research and exploit development
 - Created and hosted a Capture The Flag competition, organized and configured infrastructure and created a series of reverse engineering challenges
 - Extended a binary comparison tool with additional functionality for metric acquisition in C++ and python
- **Purdue University b01lers Capture The Flag Team - Event Coordinator** **August 2017 - Present**
 - Coordinated, hosted, and developed challenges for multiple public CTF competitions with over 600 scoring teams
 - Coordinate and create training curriculum development, teaching, and Capture the Flag events to further the skills of team members
 - Solve Challenges in Reverse Engineering, Binary Exploitation, programming, web exploitation, forensics, and steganography
- **Purdue University CERIAS Collegiate Cyber Defense Competition Team** **August 2017 - May 2018**
 - Wrote automation utilities and hardened networks, services, and systems against intrusion using industry-standard security techniques.
- **Cyber Patriot Team Captain/Co-Captain, LCHS Marine Corps JROTC** **August 2013 - June 2017**
 - Built challenges and virtual environments using VMWare and shell scripting to engage and mentor team members for hands-on learning in a technically challenging environment
 - Created scripts and tools to streamline system hardening, vulnerability analysis, and malware identification and remediation on Windows and Linux systems

Honors and Awards

- 1st Place Team member, TAMUCTF **March 2020**
- 2nd Place Indiana CCDC Team Member **March 2018**
- DefCamp CTF Finals Qualifying Team Member **September 2017**
- Purdue Presidential Scholarship Recipient **August 2017**
- CyberPatriot IX National Finalist Team Captain **August 2016 - May 2017**
- Cyber Patriot Four-time 1st Place State, Four-time 1st Place Regional Team **August 2013 - May 2017**
- Sandia National Labs Thunderbird Cup 1st Place Team Captain **October 2016 - August 2017**
- National Merit Scholarship Finalist **March 2017**
- Boy Scouts of America Eagle Scout Award **December 2012**