Neel Patel

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Education

University of Maryland, College Park
Master's, Cybersecurity, 2021.

Gujarat Technological University, Ahmedabad
B. Tech., Information Technology, 2019.

Research

Department of Computer Science, University of Maryland
Graduate Student Researcher - WiSSR Lab
Research Advisor - Prof (Dr.) Nirupam Roy
Project: Honeymaze - Intelligent honeypot/decoy environment to fool attacker.

Teaching

A. James Clark School of Engineering, UMD
Grader/TA, ENPM691 - Hacking of C Programs & UNIX Binaries, Spring 2020
Instructor, Dr. Dharmalingam Ganesan

Skills

Programming	Python, C, Java, Go
Assembly	IA32 x86, IA64 x86, ARM, MIPS
Security	OWASP 10, Kali Tools, Program Verification, Static Analysis, Web Exploitation
Machine Learning	Keras, Tensorflow, ANN, CNN

Projects

Honeymaze (Ongoing Research Project)
Researching to develop a novel technique which combines low interaction Honeypots with intelligence. Using BeagleBone Black and Multiple Honeypot Networks to deploy the system for attacker to attack the honeypot worldwide.

Attacking Cherokee Webserver - C, IA-32, Python, GNU Debugger
Developed exploit in python to buffer overflow the cherokee webserver which leads to crashing. Overwriting argv[0] to insane length causes the webserver as well as admin panel to crash and fails to bind the port.

Brute force SSH - Go, Python, Wireshark
Designed and created a brute force attacking software to gain remote access of machines through Secure Shell (SSH) protocol. Integrated project with crunch penetration testing tool to generate word-list according to specifications provided by attacker.

TP-Link Firmware Exploitation - C, Binwalk, Qemu, Firmware Mod Kit
Exploited TP-Link firmware with backdoor to get a reverse shell from a firmware to control the router. Using various tools like cutter, radare2, binwalk, qemu exploited and analyzed the firmware.

References

Dr. Nirupam Roy
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