MUKHILAN PARI

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About Me

Dedicated to fortifying digital landscapes, I am a cybersecurity professional pursuing a Master's in Information Security focusing on low-level binary & OS security and with 4.5 years of experience in **product application security (VAPT)**. Having extensively analyzed security challenges, my interest extends to the secure development domain as well, particularly in C and Go lang, with security best practices.

Looking for: Summer 2024 intern   **Domain: Security & Development.**

Education

MS CS in Information Security   **Purdue University, IN, USA**   CGPA:3.6   **06/2023 - 05/2025**

- *Coursework: Cryptography, Information Security, Software Security, Hardware-Software Security, Hardware Side Channel Attacks.*

B.Tech in Computer Science   **Amrita University, TN, India**   CGPA: 3.25   **07/2015 - 05/2019**

- *Coursework: Operating Systems, Cryptography, OOP, Data Structures and Algorithms, Compilers, Wireless & Computer Networks.*

Skills

- **Languages:** C, C++, Go, Python, Java, Bash.
- **Frameworks & Tools:** OWASP, Burp Suite, Metasploit, Kali Linux tools, Wireshark, Nmap, SQLMap, Nikto, gobuster, Frida, Xposed, mobSF, USB Killer, Binwalk, sasquatch, kube-hunter, scout suite, chip whisperer, logic analyzer, etc.
- **Explored:** VAPT in IT and OT/ICS technology, Secure boot, QEMU, Network Security, binary exploitation, and exploit development.

Certifications

Offensive Security Certified Professional (OSCP), Nov 2021 | Certified Ethical Hacker (V9), 2018.
Microsoft Azure Security Associate AZ-500, April 2021 | Course Certification In Cisco Certified Network Associate(CCNA) ,2017.

Professional Experience

Analyst - OT Security Testing lab   **Dubai Electrical & Water Authority**   *Dubai, UAE*   **02/2022 - 06/2023**

- Evaluated security products to meet DEWA's security requirements, conducting vulnerability assessments under OT Security Division.
- Played a key role in the Pre-Qualification committee analyzing ICS products, mainly on the Web, API, Firmware, & Hardware Pentesting.
- Led research and development of the OT Security Lab testing infrastructure, simulating attack vectors and test cases in ICS environments and liaising with vendors and contractors for all possible use cases to meet ISA IEC 62443 Standards.
- Improved overall security postures of 30% in existing infrastructure & 100+ issues found in vendor security products for OT Security unit.

Cyber Security Engineer II   **Honeywell**   *Bangalore, India*   **01/2019 - 12/2021**

- Led the E4E business unit projects across all PI phases as a point of focal, and collaborated with project teams as an SME.
- Developed streamlined procedures that increased efficiency by 50% for mobile & cloud pen-testing processes and test case scenarios.
- Performed analysis on Application Threat Modelling, Application Risk Exposure, Vulnerability Assessment, and Penetration testing.
- Conducted security testing & verification across web, cloud, and mobile pentesting. Also, explored firmware and hardware pentesting.
- Automated tasks using Python & Bash for internal routine manual activities and achieved a 30% overall improvement in KPI.

Projects

- **Guest lecture:** Guest talk on "CTF - learn, play and fun" at the University of Wales Trinity Saint David in Nov 2020 with over 50 members.
- **CTF contributions:** Part of DarkArmy, Authored challenges & hosted DarkArmy CTF, focusing on Web, OSINT, and Blockchain categories.
- **E-commerce website project:** Developed an e-commerce website for a small-scale business in 2017 with 2-year support as a volunteer.
- **Paper Publication:** May 2018, Published a research paper introducing a three-layered Multi-Factor Authentication system for online examinations, integrating facial recognition, biometric scanning, and OTP verification for heightened security and integrity.
- **OWASP Technical Member:** Shared technical expertise and provided guidance within the OWASP chapter team as a technical member.
- **Hardware Side Channel Attacks:** understanding different hardware architecture and possible side-channel attacks using chipwhisperer.

Achievements

- **CTFTime:** Achieved a top 5 ranking in India and a global ranking of 101, contributing to solving web & network challenges category.
- **Awards:** 3 Bronze cash awards, 6 Bravo e-thanks awards in Honeywell, and 2 tejori cash awards in Dubai Electrical & Water Authority.