Prathiksha Sivakumar

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Skills

- **Operating Systems:** Windows, Linux, Kali Linux, MacOS
- **Programming:** Python, C++, Bash Scripting, JavaScript, HTML, CSS, PHP
- **Applications:** Burp Suite, Wireshark, Nmap, MobSF, Drozer
- **Methodologies:** Intrusion Detection and Response, Linux Security, Malware Analysis, Risk Assessment, Threat Modelling, Vulnerability Assessment and Penetration Testing (VAPT)

Education

Master of Engineering, Information Systems Security   *Jan 2022 – Jan 2024*
Concordia University
Montreal, Quebec

- Relevant Courses: Operating Systems Security, Wireless Network Security, Security Evaluation Methodologies, Malware Defenses and Application Security

Bachelor of Engineering, Computer Science and Engineering   *2017 – 2021*
Easwari Engineering College (affiliated to Anna University)
Chennai, Tamil Nadu, India

- Relevant Courses: Computer Networks, Distributed Systems, Cryptography and Network Security

Languages

English, French, Tamil, Hindi

Work Experience

Web Development Intern   *July 2021 - Oct 2021*
Black I Technologies and Solutions, Chennai, India

- Became adept at reading **HTML, PHP**, and **JavaScript**.
- Thrived in a fast-paced environment and **adapted** to changing requirements and priorities.
- Took responsibility for **20+ modules, debugging and implementations** under the supervision of senior developers.
- Develop the ability to learn and apply **5+ new technologies** as per project requirements quickly.

Academic Projects

Security Evaluation on 'System-On Chips (SoCs)'   *September 2022 - December 2022*

- Conducted **extensive research** on the complexities of SoCs and **hardware security**, demonstrating a strong grasp of security principles and hardware vulnerabilities.
- Employed **rigorous evaluation methodologies** to identify around **10 vulnerabilities**, underlining expertise in identifying and **assessing hardware-level weaknesses**.
- **Recommended** robust policies and mitigations to address identified risks, highlighting the ability to provide practical solutions to enhance security.
- Crafted a **detailed report** effectively communicating **complex security concepts**, demonstrating strong **documentation** skills.

Analysis of Privacy and Security on 'Privacy Vault Applications'   *September 2022 - December 2022*

- Grasped the functionality and features of tools like **Drozer, Burp Suite, Wireshark** and **MobSF**.
- Conducted in-depth assessments on **30** privacy vault applications, showcasing a thorough understanding of **data handling** practices and **protocol analysis**.
- Performed meticulous **dynamic testing** to identify vulnerabilities such as unauthorized access and data leakage, emphasizing the **ability to assess** the security of applications.
- Explored the intersection of **privacy and security principles**, gaining insights into data analysis and protecting sensitive user information.
- Developed **incident response** procedures and recommendations to mitigate identified vulnerabilities and **enhance the security** posture of privacy vault applications.

Demonstration of Attacks on Wireless Networks *May 2022 - July 2022*
- Utilized **Wireshark** to capture and **analyze network traffic**, identifying vulnerabilities and potential attack vectors within wireless communications.
- Evaluated network security through various attack scenarios, including **password recovery, DNS spoofing, de-authentication attacks** and **fake access points**.
- Developed the capacity to respond effectively to security incidents by **understanding attack patterns**, and improving **incident response** skills.

Implementing RSA Algorithm using Python *January 2022 - April 2022*
- Applied mathematical and algorithmic concepts to create an efficient **implementation** that handles encryption and decryption.
- Refined **debugging** skills and resolved issues related to mathematical operations through the development process.
- Displayed the versatility of the RSA algorithm by applications in digital signatures, reinforcing the understanding of **cryptographic techniques** beyond encryption.
- Developed **problem-solving** skills by identifying and addressing challenges related to data conversion.