KEYUR AGHAO

📞 412-330-8935 ✉ kaghao@andrew.cmu.edu in linkedin.com/in/keyur-aghao 🌐 Portfolio

Education

Carnegie Mellon University   **Pittsburgh, PA**
Master of Science in Information Technology – Information Security (Advanced Study)   **January 2025 - Present**
Area of Concentration - Cyber Forensics & Incident Response

Pune Institute of Computer Technology   **Pune, India**
Bachelor of Engineering in Electronics and Telecommunication   **July 2019 - April 2023**
Honours with specialization in Cyber Security

Relevant Coursework

- Applied Threat Analysis
- Cloud Computing
- Computer Networks
- Deep Learning
- Host-Based Forensics
- Mobile & IOT Security
- Network Security
- Network Forensics

Experience

Bajaj Finance Ltd.   **Pune, India**
Red Team & Domain Manager   **July 2023 - December 2024**

- Assessed the configurations of security controls implemented over wireless networks, IoT devices, APIs, web applications, Active Directory, etc., by performing penetration testing. Later, I reported, tracked, and remediated these vulnerabilities with the help of respective teams.
- Crafted new custom tools for attack surface management, continuous VAPT, endpoint security, and various other activities with better accuracy than paid tools. Collectively saving more than Rs.100 million per annum.
- Led the projects on API security, Client-Side Protection, and Compliance through Akamai. Researched and categorized alerts beforehand and automated the process of closing nine out of twenty-three categories of alerts using pre-defined conditions gathered through research.
- Head In-charge of cybersecurity for all Pune's Bajaj Finance Ltd. contact centers. Performed external and internal red team assessments for each. Lastly, tracking and mitigating the observations and strengthening the infrastructure.
- Evaluated and screened 500+ AI/ML deployments before production of bots, voice-bots, content creation, etc. through reverse & prompt engineering. Suggesting and remediating the observations to reduce new attack vectors.

API Governance & Application Security Intern   **January 2023 - July 2023**

- Investigated 4000+ APIs for policy misconfigurations over the gateway, which could result in logical vulnerabilities. Mitigating these vulnerabilities by suggesting the correct configurations to the respective SPOC.
- Published an API inventory which is maintained and referred to during multiple audits and troubleshooting activities.

Projects

Golden Eye | *Python, C++, Power BI, Outlook*   **July 2023 - February 2024**

- Engineered a tool to automate the process of continuous VAPT for web applications, monitoring and managing the organization's attack surface. Achieved by integrating multiple tools for subdomain enumeration and using Burp Suite, Nuclei, custom-made scanners, and tools for vulnerability assessment and attack surface management. Finally, the results will be displayed on a Power BI dashboard, and the CSV file will be mailed for detailed analysis.

Cloud Piercer | *Python, JS, Azure, GCP, AWS, AI*   **July 2023 - Mar 2024**

- Developed a tool for monitoring data leakage through cloud buckets. Incorporated GreyHatWarfare to find exposed buckets and dived deeper into Azure to enumerate entire blobs and containers. I used a custom AI-trained model to identify critically exposed data, and finally generated a CSV file with details of the issues.

Publications and Conferences

Aghao K.R., Tribhuvan V. Hardware Vulnerability: Meltdown. Lecture Notes in Networks and Systems, vol 676. Springer, Singapore. https://doi.org/10.1007/978-981-99-1699-3_14, 27 July 2023

Aghao Keyur "Hardware Vulnerability: Meltdown", NIELIT's International Conference on Communication, Electronics and Digital Technologies (NICE-DT'23), New Delhi, 10 - 11 February 2023

Aghao Keyur. "Hardware Vulnerability: Spectre". Pulzion'22 by PICT ACM, Pune India, 22 - 24 April 2022

Aghao Keyur. "Hardware Vulnerability: Spectre". Impetus and Concepts 2023, Pune India, March 2023

Technical Skills

Languages: *Advanced-* C, C++, Python; *Intermediate-* GO, MATLAB, PowerShell, SQL, VHDL, JavaScript
Application Software: Adobe Photoshop, Akamai, Autopsy, Burp Suite, Cobalt Strike, Core Impact, Dradis CE, DefectDojo GDB, Gidra, GIMP, GitHub, Ida, Metasploit, Nmap, Oxygen Forensics, Power BI, Visual Studio, Wireshark, WordPress, Xilinx