

# KEYUR AGHAO

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## Education

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### Carnegie Mellon University

Master of Science in Information Security (Advanced Study) - 3.62/4

Cyber Forensics and Incident Response (CyFIR) Certificate

Pittsburgh, PA

Jan 2025 - Dec 2026

### Pune Institute of Computer Technology

Bachelor of Engineering in Electronics and Telecommunication - 8.67/10

Honours with specialization in Cyber Security

Pune, India

Jul 2019 - Apr 2023

## Professional Experience

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### Bajaj Finance Ltd.

Pune, India

#### Domain Manager - Cyber Security

Jul 2023 - Dec 2024

- Led the design and deployment of custom security tools for attack surface management, continuous VAPT, and endpoint protection; improved detection accuracy over commercial solutions and enabled annual cost savings exceeding **Rs.100M**.
- Led security projects focused on **API security, client-side protection, and compliance** using Akamai platform. Automated triage and resolution workflows, resulting in a **39% reduction** in manual incident handling.
- Directed cybersecurity operations for **4 Bajaj Finance Ltd. contact centers**, conducting internal and external **red team assessments**, remediating findings, and hardening IT infrastructure against simulated adversarial attacks.
- Assessed **500+ AI/ML** models and tools (chatbots, voice assistants, generative AI) for security risks pre-deployment, using **prompt and reverse engineering** to detect and mitigate AI-specific vulnerabilities.
- Performed **penetration testing and vulnerability assessments** on wireless networks, IoT devices, APIs, web applications, and Active Directory environments, identifying and mitigating **over 60 security vulnerabilities** in alignment with **OWASP** and **MITRE ATT&CK** frameworks.
- **Led cybersecurity drills and tabletop exercises** assessing infrastructure resilience, **IDS/IPS, SOC response, data loss prevention, endpoint (Microsoft Defender), email (O365 Defender), and Akamai network intrusion controls** in accordance with the **NIST Framework** to strengthen **risk management and ensure compliance**.

#### API Governance & Application Security Intern

Jan 2023 - Jul 2023

- Investigated **4,000+ APIs** for **policy misconfigurations** at the gateway level, identifying potential **logical vulnerabilities**. **Collaborated with SPOCs** to recommend and implement correct configurations for mitigation.

### Center for Technology Transfer and Enterprise Creation

Pittsburgh, PA

#### Enterprise Creation Intern

May 2025 - Aug 2025

- Collaborated in cross-company technical meetings on **FPGA-based post-quantum cryptography (PQC)** product integration and **authored a technical white paper** on cryptographic implementation strategies.
- **Designed data-driven pricing models for TEEL Lab at Carnegie Mellon**, optimizing course offering strategies and supporting revenue growth through analytical research and stakeholder collaboration.

## Projects

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### Golden Eye | *Python, C++, Power BI, Outlook*

Jul 2023 - Feb 2024

- **Engineered an automated tool** for **continuous VAPT** of web applications, integrating **subdomain enumeration, Burp Suite, Nuclei**, and custom scanners for **attack surface monitoring**. Results were visualized via a **Power BI** dashboard and shared through automated **CSV reports** for detailed analysis.

### Cloud Piercer | *Python, JS, Azure - playground, GCP, AWS, AI*

Jul 2023 - Mar 2024

- **Developed a data leakage monitoring tool** for **cloud storage buckets**, integrating **GreyHatWarfare** to detect exposed assets and performing in-depth enumeration of **Azure blobs and containers**. Used a **custom AI-trained model** to identify **critical data exposures**, with findings exported to **CSV reports** for further analysis.

## Publications and Conferences

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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](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

## Technical Skills

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**Certification:** Cryptography and Network Security (**NPTEL22CS90S33730240**) *In-Progress*: Certified Ethical Hacker

**Languages:** *Advanced*- C, C++, Python; *Intermediate*- MATLAB, PowerShell, SQL, VHDL *Beginner*- Rust, GO

**Tools & Frameworks:** ADB, Akamai-CPC & API security, Autopsy, Azure Defender, Burp Suite, Cobalt Strike, Core Impact, Docker, Ghidra, IDA, Metasploit, Nessus, Nmap, Oxygen Forensics, Power BI, Q-Radar, Wireshark, Xilinx