Aswin M Guptha

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Summary

Security Engineer with 8+ years of experience securing web, API, and mobile applications across diverse environments. Skilled in secure code review, vulnerability triage, threat modeling, and integrating security into developer workflows. Experienced in guiding engineering teams through remediation, embedding security in SDLC processes, and building automation for AppSec tooling. Recognized trainer, mentor, and open-source contributor with multiple public CVEs and international speaking engagements.

CVEs

- CVE-2025-20240 - Cisco - Medium - Cross-site scripting
- CVE-2019-19902 - BackdropCMS - Critical - Remote Code Execution
- CVE-2019-16725 - Joomla! - Medium – Cross-site scripting

Experience

Lead Security Engineer

Traboda Cyberlabs   *2021–Present*

- Directed application security programs for web, API, and mobile ecosystems, embedding security into SDLC processes and aligning with OWASP ASVS, SAMM, and NIST standards.
- Conducted in-depth threat modeling (STRIDE, attack surface analysis) for new features and critical applications, driving secure design decisions early in the SDLC.
- Performed secure code reviews across diverse stacks (Node.js, Python/Django, PHP), identifying critical vulnerabilities and influencing secure design decisions pre-deployment.
- Built automated security pipelines (Semgrep, CodeQL, SCA, DAST) within CI/CD, reducing detection time and improving remediation efficiency.
- Delivered 200+ engineer trainings and developed 100+ hands-on labs on OWASP Top 10, business logic flaws, and real-world exploit scenarios, strengthening organizational AppSec capability.
- Served as AppSec advisor to product leadership, defining secure coding guidelines, API security standards, and architecture reviews for microservices and cloud-native deployments.

Senior Researcher

Amrita Center for Cybersecurity Systems and Networks   *2019–2021*

- Designed and developed advanced secure coding labs and simulation environments replicating real-world attack scenarios (OWASP Top 10, API flaws, mobile vulnerabilities), which were later adopted in both academic curricula and corporate training programs.
- Built a structured training program on secure REST API design and development, enabling 300+ students and professionals to understand authentication, authorization, and common API exploitation patterns; this program became a foundation for Amrita's industry outreach initiatives.
- Created hands-on cybersecurity labs and exercises for courses such as *Modern Web Application Development & Exploitation* and *Vulnerability Assessment & Penetration Testing*, leading to improved student performance in national and international CTF competitions.
- Collaborated with faculty and industry experts to align cybersecurity training modules with emerging threat landscapes, ensuring graduates were industry-ready and aligned with secure SDLC practices.

Mentor

Team bi0s   *2019–Present*

- Mentored India's top-ranked Capture The Flag (CTF) team in web and application security, guiding students to multiple podium finishes at prestigious international competitions.
- Developed advanced training modules on web exploitation, API security, and logic flaw hunting, enabling over 50 students to transition from beginners to world-class security researchers.
- Provided structured mentorship on vulnerability research and disclosure processes, resulting in several students publishing CVEs and research papers at reputed conferences.
- Created a research-driven culture in the team by introducing systematic review sessions, post-CTF debriefs, and collaborative write-ups that were widely recognized in the global security community.

Security Researcher

Team bi0s   *2015–2019*

- Actively participated in and secured top positions at international CTFs, gaining deep expertise in web exploitation, secure code review, Application Security etc.
- Discovered and responsibly disclosed critical vulnerabilities in widely used open-source platforms, earning CVEs that highlighted impactful contributions to the security community.
- Built custom automation frameworks and scripts to detect and exploit complex vulnerability patterns (authentication bypasses, chained logic flaws), accelerating the team's problem-solving efficiency during competitions.
- Collaborated with peers in cross-disciplinary challenges (pwn, crypto, forensics), broadening skillsets and strengthening the team's global ranking in competitive security.

Organizer

InCTF, InCTF Junior, Cyber Gurukulam   *2015–Present*

- Spearheaded the organization of India's first national-level Capture The Flag competitions (InCTF and InCTF Junior), impacting 10,000+ students by introducing them to practical cybersecurity through hands-on challenges.
- Designed beginner-to-advanced challenges covering real-world vulnerabilities in web, mobile, and API domains, significantly improving the learning curve of participants.
- Structured end-to-end training tracks on secure development, source code auditing, and exploitation techniques, enabling hundreds of participants to advance from foundational to expert-level security skills.
- Led Cyber Gurukulam, an annual week-long cybersecurity bootcamp, training 500+ students in secure application design, red teaming, and modern attack-defense strategies, many of whom went on to build successful careers in cybersecurity.
- Built collaborations with academia, industry experts, and government organizations to expand the reach of these programs, establishing them as flagship initiatives in India's cybersecurity education ecosystem.

Talks and Workshops

- Speaker, Blackhat Europe, 2023
- Speaker, Blackhat Middle East Africa, 2023
- Trainer, C0C0N International Cybersecurity Conference, 2023
- Trainer, Amrita Certified VAPT Wizard, 2022
- Speaker, CysInfo Cyber Meet 2016
- Speaker, International Summer School on Information Security and Protection 2016

Invitee

- Blackhat Asia 2019
- Troopers International Cyber Security Conference 2019
- BSides Delhi 2019
- Nullcon International Conference Goa 2018, 2019

Skills & Abilities

- Web, API, and Mobile Application Security
- Secure Code Review (Python, NodeJS, PHP)
- Burp Suite, OWASP ZAP, Postman, MobSF
- Semgrep, GitHub Actions, CI/CD Integration
- Threat Modeling (STRIDE), Secure SDLC Practices
- CVSS, OWASP Top 10, API Top 10, MASVS, MITRE ATT&CK
- Vulnerability Assessment, Business Logic Testing

Education

Bachelor of Technology in Computer Science Engineering
Amrita Vishwa Vidyapeetham