

Aswin M Guptha

Security Researcher

Summary

Application 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-2019-19902 - BackdropCMS - **Critical** - Remote Code Execution
- CVE-2019-16725 - Joomla! - **Medium** - Cross-site scripting.

Experience

Lead Security Engineer, Traboda Cyberlabs [2021 - Present]

- Conducted extensive web, API, and mobile application assessments, identifying logic flaws, access control issues, and common OWASP Top 10 vulnerabilities.
- Led red teaming and penetration tests for high-stakes environments (e.g., hospitals and financial institutions), identifying and remediating critical vulnerabilities across web, mobile, and internal infrastructure.
- Implemented a customized OWASP ASVS-based checklist for internal and client app assessments to standardize security reviews.
- Led secure code review efforts across multiple tech stacks (JavaScript/Node.js, Python/Django, Java/Spring), identifying critical vulnerabilities pre-deployment.
- Delivered advanced Web Security and API security testing workshops to over 200 professionals, incorporating real-world CVE examples and attack simulations.
- Provided AppSec advisory to engineering teams on secure session handling, authentication flows, and API security best practices.
- Designed and deployed 100+ hands-on labs covering OWASP Top 10, business logic flaws, and abuse case modeling to enhance internal training programs and bootcamps.

Senior Researcher, Amrita Center for Cybersecurity Systems and Networks [2019 - 2021]

- Created secure coding labs and simulation environments that emulate real-world vulnerabilities in web and mobile ecosystems.
- Led the design of a training program on secure REST API development, used in academic and corporate settings.
- Designed and developed Cyber security labs and lectured for various courses such as Modern Web Application Development and Exploitation, Penetration testing etc.

Mentor, Team BiOs [2019 - Present]

- Mentored and coached India's top CTF team (Team biOs) in Web Security; guided students to podium finishes in various international CTFs.

Web Application Security Researcher, Team bi0s [2015 - 2019]

- Participated in and won top international CTFs, gaining deep technical experience in web exploitation, mobile app reversing, and source code review.
- Contributed to discovery and disclosure of vulnerabilities in popular open-source platforms, including critical CVEs.
- Developed custom scripts to automate the testing of common web vulnerability patterns (e.g., bypasses, logic flaws, chained exploits).

Organizer - InCTF, InCTF Junior, Cyber Gurukulam [2015 - Present]

- Organized India's first national-level CTFs for college and school students, with a focus on hands-on AppSec education.
- Designed beginner-to-advanced challenges focusing on real-world vulnerabilities across web, mobile, and API categories.
- Delivered structured learning tracks on secure development, source code auditing, and modern threat scenarios.
- Spearheaded Cyber Gurukulam - an annual week-long cybersecurity bootcamp - training 500+ students in secure application design and attack defense principles.

Talks and Workshops

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

Invitee

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

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

BTech | Amrita Vishwa Vidyapeetham

- Bachelor's in Computer Science Engineering