

Shoeb Patel

SECURITY ENGINEER · FULL STACK DEVELOPER

London, UK

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“An attacker needs only one opening. A defender must guard them all.”

Introduction

A Hacker and an Engineer who is seeking mastery of **Software Security, Cloud, Software Engineering, and Security Research**. Currently Security Engineer 2 for the AppSec Team at AWS (Amazon Web Services). Experienced in Penetration Testing, Threat Modeling, Application Security and Automating Security.

Work Experience

AWS (Amazon Web Services)

London, UK

SECURITY ENGINEER 2

Sept. 2022 - Present

- Independent Owner of Application Security for AWS Networking Experience services such as VPC, ELB, Transit Gateway, and EC2 Commercial Services (Image Builder, etc.)
- Performing large-scale design reviews and threat models for complex AWS Cloud Internals.
- Providing judgment in calibrating security issues and business trade-offs by applying deep technical knowledge.
- Drive security discussions at leadership levels to influence products early in their life-cycle.
- Identify gaps in security tooling, recommend solutions, and deploy continuous security testing to provide consistent security and scale security effort.

Flipkart (Biggest E-Commerce Platform in India)

Bangalore, India

SENIOR SECURITY ENGINEER

Oct. 2019 - Sept. 2022

- Secure SDLC - Owning security charter for Engineering Teams and Business Units, integrating application security into every step of the SDLC by Delivering to all of the Application Security needs of each stage of the Software Life Cycle.
- Developing AppSec Services and Automations around the DevSecOps practices such as Static Analysis, Attack Surface Security to scale beyond the manual reviews.
- Providing Architecture Reviews early in the Development stages of products.
- Recurring Threat-Models, Code Reviews, Complete Reviews for Platform (K8s), Web Apps, Micro-Services and Mobile Applications.
- Managing a private Invite-only BugBounty Program.
- Evangelising and creating a culture of security through recurring training and CTF competitions for Engineering Counterparts.
- Previous Role - Security Engineer, Oct 19 - Aug 21

BrowserStack (Industry leading software testing platform)

Mumbai, India

SECURITY ENGINEER

Jun. 2019 - Oct. 2019

- One of the initial members of the BootStrapped Security Engineering team.
- Built scalable in-house solution for real-time detection of Source Code, Credentials leakage on the public internet.
- Deployment of SIEM for anomalous AWS events, Network, and Application Layer events.
- Red Teaming on production Apps.
- Threat Models and Security Reviews of Products.
- Application Inventory Management from Security Point of View.

Google

Remote

STUDENT DEVELOPER, GSOC 18 & MENTOR, GSOC 19

Apr. 2018 - Jun. 2019

- As a mentor in Google Summer of Code 2k19, gave guidance to selected students for the project of OWASP foundation's Juice Shop Vulnerable Javascript application. The domain of the Project was Web Application Security, CTF challenges, and Web Development.
- In the year 2018, before being a mentor, I myself worked as a Student Developer under Mentor-ship of OWASP Juice-Shop's project maintainer.
- Built 12 challenges (Medium-Hard Difficulty) and Web functionalities around them.
- Project involved writing frontend in Angular, Backend in Node (expressJS) and Multiple test writing libraries separately for unit, integration and E2E tests.
- Databases in the design were MongoDB and SQLite.

UnderDawgs (CTF Team)

India

FOUNDER & CAPTAIN

Dec. 2019 - Present

- UnderDawgs is a nascent CTF team, which participates in the world-wide CTFs around the year.
- Leading the team of hackers to excel at vulnerability research and capture the flag competitions. (CTFtime Id: 60327)
- Personally focused on Web Security Challenges and Research.

HackerOne & BugCrowd (Vulnerability Reward Program Platforms)

Remote

BUG BOUNTY HUNTER & FREELANCE HACKER

Mar. 2018 - Jun. 2019

- Gained pragmatic knowledge and methodology to approach Black Box Hacking Targets.
- Participated in multiple Private and Public Bug Bounty Programs maintaining perfect Signal of 7.0 with 100% accuracy and gaining several Rewards.
- Hackerone Profile: <https://hackerone.com/0xcaptainfreak>
- BugCrowd Profile: <https://bugcrowd.com/CaptainFreak>

Miscellaneous work

HALL OF FAMES

• Google • Amazon Web Services • U.S. Department of Defense • Github Security Lab (CodeQL) • Oracle • Dell • Intel • Salesforce • MasterCard • Western Union • Marks and Spencer • NetGear • Codacy • Visma • MuleSoft • DataDog • UptyCS • Smule • TomTom • Informatica

OPEN SOURCE CONTRIBUTIONS

• Metasploit • OWASP Zaproxy • OWASP Juice Shop • Subfinder • Reconnoitre • NoSQLMap • GitDump • freeCodeCamp

Publications

- 2022 **Automata: A General-Purpose Automation Platform**, [Link](#)
- 2022 **How Flipkart Reacts to Security Vulnerabilities**, [Link](#)
- 2021 **CVE-2021-32817 Collision - The Secret Parameter, LFR, and Potential RCE in NodeJS Apps**, [Link](#)
- 2021 **CVE-2021-22255 - SSRF Vulnerability in BaseRow**, [Link](#)

Skills

Security

• Threat Modeling • Web • APIs • Mobile • DevSecOps • Code Review • Cloud (AWS) • BugBounty • CTFs

Programming

• JavaScript • NodeJs • Python • Algorithms and Data Structures • C • C++ • Java • Go • Git

Platforms, Tools & Frameworks

• Kubernetes • AWS • Containers • BurpSuite • VueJS • Express • MongoDB • CodeQL

Program Committees

June, 2020 - **CTF Organizer & Challenge Writer**, BSides Ahmedabad 2020

India

Education

NIT Goa (National Institute of Technology)

Goa, India

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

July. 2015 - Apr. 2019

- Completed with CGPA of 8.53/10
- Major Courses: Network Security, Cryptography, Data Structure and Algorithms, Operating Systems, Computer Networks, Database Systems, Object Oriented Programming, Computer Architecture and Compiler Design.

Extracurricular Activity

NITG Aficionados

Goa, India

FOUNDING PRESIDENT

Jan. 2017 - Apr. 2019

- Formed the geek society focusing on software engineering, competitive programming, problem solving and Career Development.
- Community Link: <https://github.com/NITG-Aficionados>