

# Shoeb Patel

SENIOR SECURITY ENGINEER · FULL STACK DEVELOPER

Bangalore, India

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*“Exploits are the closest thing to ‘magic spells’ we experience in the real world: Construct the right incantation, gain remote control over device.” - halvarflake*

## Summary

Currently Senior Security Engineer for the AppSec Team @Flipkart. **3+ years** of experience specializing in Security Engineering, Threat Modeling, Application Security Reviews, DevSecOps, Security Automation, Penetration Testing and BugBounty Program Management. A Wannabe 10x Hacker and Engineer who closely follows the technology plain of **Software Security, Cloud, Back-end Engineering and Security Research.**

## Work Experience

### Flipkart (Biggest E-Commerce Platform in India)

Bangalore, India

SENIOR SECURITY ENGINEER

Oct. 2019 - Present

- 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.
- Providing Architecture Reviews early in the Development stages of products.
- Recurring Threat-Models, Code Reviews, Complete Application Reviews of Platform(K8s), Web Apps, Micro-Services and Mobile Applications.
- Developing AppSec Services and Automation around the DevSecOps practices.
- 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

- Developed 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>

- Developed complete Web Application in Spring and AngularJS that was used as a Training Lab for teaching prevalent vulnerabilities and best practices of Web Security.
- Contributed more than 20 API security challenges in the Labs.

## Miscellaneous work

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### 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

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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](#)

2018-21 **Personal Security Research, Experiences, and CTF Challenge Write-ups**, [Link](#)

## Skills

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### Security

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

### Programming

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

### Platforms, Tools & Frameworks

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

## Program Committees

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

India

## Education

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### 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.

### JNV Washim (Jawahar Navodaya Vidyalaya)

Maharashtra, India

HIGH SCHOOL - ALL INDIA SENIOR SCHOOL CERTIFICATE EXAMINATION

Middle School - High School

- Sports, Music, Computer Science and Hacking.
- High School Score: 93%
- SSC CGPA: 10/10

## Extracurricular Activity

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### 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>