

# Syed Mohammad Ibrahim

ibrahim.work@proton.me | iamibi.app.link/linkedin | iamibi.app.link/github | iamibi.app.link/quora

## EDUCATION

### Master of Engineering in Cybersecurity (3.8/4.0)

University of Maryland, A. James Clark School of Engineering

College Park, USA

Aug. 2021 – Dec. 2022 (Exp.)

#### Coursework:

- Introduction to Secure Coding
- Hacking of C Programs and Unix Binaries
- Security Tools for Information Security
- Penetration Testing
- Secure Operating Systems
- Network Security

### Bachelor of Engineering in Computer Science (7.54/10.0)

RGPV University, Lakshmi Narain College of Technology and Science

Bhopal, India

Jun. 2013 – May 2017

## PROJECTS

### Secure Code Review



- Performed Secure Code Review on Open-Source Project Sonarr
- Wrote a report on the Common Weakness Enumeration's (CWE's) found during the review
- The Report outlines all the tools used in complement with the manual code review process.

### Secure Web Application | .NET Framework 4.7



- Worked on attacking and defending the Webgoat.NET application
- Reported Common Weakness Enumeration (CWE) for all exploits performed as an attacker
- Secured the application for respective CWE's with best practices as a developer

### Penetration Testing | MySQL, Ubuntu 14.04, Windows 7 SP 1, Windows Server 2016, Wordpress Website

- Performed penetration testing on various applications and operating systems
- Exploitation techniques involved, but not limited to, Cross-Site Scripting (XSS), SQL Injection, MS17-010 Eternal Blue, Cowroot, Privilege Escalation, Buffer Overflow, etc.
- Used Open Source Intelligence (OSINT) for reconnaissance and identifying attack vectors
- Few of the tools involved in the process are NMap, Searchsploit, Metasploit, Hashcat, Burp Suite, etc.

### Employee Management System | ASP.NET Core, C#, Microsoft Security Libraries, MongoDB



- A portal for managing employees with primary focus on security details
- Implemented logging, password hashing and salting, AntiXss Sanitization and Sessions as part of the project
- Areas covered in the project are Input Validation, Cryptography, Authentication & Authorization, Session Management, Error Handling, Logging and Debug

### Full List of Projects



## EXPERIENCE

### NVIDIA

Information Security Analyst Intern

Adelphi, USA

May 2022 – Aug. 2022

- Implemented Security Control Automation Framework
- Developed a process for code development and quality assurance

### Fraunhofer Center Mid-Atlantic (CMA)

Software Engineer Intern - Part Time

Adelphi, USA

Jan. 2022 – May 2022

- Worked on developing REST API's for backend using Flask
- Implemented the architecture to interact with AWS Dynamo DB using Python's Boto 3 library
- Used PyTest to perform unit and functional testing for the application
- Implemented AWS Cognito login authentication on server side

### Poshmark

Senior Software Engineer - I

Chennai, India

Apr. 2021 – Aug. 2021

- Worked on building the infrastructure for the Milestone project with the help of utilities like RabbitMQ, MongoDB, and Sidekiq
- Branch.io deep linking and universal linking enhancements
- Worked on upgrading static code linter - Rubocop

*Software Engineer - II*

*Jul. 2020 – Mar. 2021*

- Migrated AppsFlyer SDK triggered tracking events to GTM based tracking events on iOS
- Implemented OAuth 1.0 and OAuth 2.0 protocols for connecting external services like Pinterest, Twitter, Tumblr, etc
- Improved the effectiveness of RSpec test cases by migrating to the new "expect" syntax from the "should" syntax
- Worked on implementing the shipping promo feature for guest checkout flow
- Revamped the whole external partner's infra for readability and removed redundancy for ease of understanding
- Worked on migration of the Share Settings page on the web from Rails to Vue.js and respective APIs

*Software Engineer - I*

*Nov. 2018 – Jul. 2020*

- Migrated the code for Ad Partners tracking from Server to Google Tag Manager (GTM)
- Enhanced the Posh Influencer and Posh Ambassador programs along with the usage of Cron Jobs
- Built the infrastructure for generating Image Sitemaps for indexing
- Participated in the Hacktoberfest 2k18 and created multiple open-source pull request changes to different libraries

## **Tata Consultancy Services**

**Chennai, India**

*Assistant System Engineer*

*Jul. 2018 – Nov. 2018*

- Developed search functionality for the client's enterprise iOS App
- Built the native iOS unit testing framework to perform Test Driven Development (TDD)

*Assistant System Engineer - Trainee*

*Aug. 2017 – Jul. 2018*

- Trainee in Automation and Manual testing.
- Worked on various kinds of test suites like selenium, HP Quick Test Pro, etc
- Learned Swift 4 as part of the iOS development project that I was assigned to

## **TECHNICAL SKILLS**

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**Languages:** Ruby, Python, C/C++

**Frameworks:** Ruby on Rails, Cucumber, RSpec, XCode Test Suite, Flask

**Databases:** MongoDB, Amazon Redshift, AWS Dynamo DB

**Developer Tools:** Git, Docker, Vagrant, Google Tag Manager, Jenkins

**Network & Pentesting Tools:** Hashcat, Burp Suite, AFL, NMap, Hydra, Dig, Searchsploit, Wpscan, Metasploit, Wireshark, Nessus

## **LEADERSHIP AND ACTIVITIES**

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### **Bit Camp, Hackathon**

**College Park, MD, USA**

*Mentor*

*Apr. 2022*

Primary responsibility involved assisting the hackers in unblocking their technical road blocks by providing insights on their desired tech stack

### **Technica, Hackathon**

**College Park, MD, USA**

*Mentor*

*Nov. 2021*

Mentored at the hackathon for under-represented genders and helped out participants with their projects and ideas

### **Rotaract Club of East Kolkata**

**Kolkata, India**

*Participant*

*Jul. 2020*

This is an NPO that works for the welfare of society and participates in social activities like educating the underprivileged, raising funds, etc. I participated in one such activity where they were raising funds for the needy by organizing an excel workshop for a nominal charge

## **EXTRA-CURRICULAR ACTIVITIES**

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- **Professional Learning:** Studied multiple courses from various MOOC platforms like Coursera and edX under domains like Cybersecurity and Programming.
- **Sports:** Ran a 10km marathon organized by Decathlon - Run for your loved one.