

# Aditya Anand

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## Experience

- Curl Analytics (InfoSec Intern) [May'19 to Till Date]

### **Responsibilities:**

- Contribute to setting up the security infrastructure for the startup.
- Have been creating our own control centre & monitoring dashboard using various open source tools.
- Working on various projects that focus on the security architecture of the entire startup
- Building the work from home model & integrating it with deployment with Ansible scripts & Free IPA
- Setting up internal file sharing system & pen-testing it for vulnerabilities.
- Prepared for a pen-test of a blockchain application for a client that integrated it with a KYC solution.

- Freelance ( Bug Hunter ) [Jan'18 to Till Date]

### **Responsibilities:**

- Took web app pen-test offers from clients to find vulnerabilities on their website.
- Prepare reports for them and then present them with the security issues they need to solve.
- I also took up private projects that was requirements from particular individuals solve their issues.

- Mozilla (Quality Assurance - Contributor) [Dec'17 to Nov'18]

Have been working under the Mozilla India community, which takes care and oversees the quality of all the three versions of the Firefox browsers. ( Standard Firefox, Firefox Dev Edition & Firefox Nightly).

### **Responsibilities:**

- The Quality assurance team does rigorous checks before the browser is released for download by the users
- The testing parameters are set by the developers and are informed to the Quality Assurance team
- They they gave extra focus on those particular issues.
- Every time a new feature is added its tested time and again on different OS and the different versions so that the user might not face any difficulties using it.
- We also do bug triaging and bug verification if some the bugs remains in the browser even after testing them thoroughly
- Bug reports are obtained from Bugzilla, we first verify the Bug if it actually exists or not
- If the bug is legit we give out the solutions to the users or pass it on to the developers

- Azure Skynet (Intern) [June'17 to Jul'17]

Worked at Azure Skynet Solutions as summer intern for a period of 15 days. Had tons of hands on activities on various cyber attacks and how to mitigate those and the steps that should be taken to increase the level of security

### **Responsibilities:**

- Performed system hacking on the MacOS, Windows and several others versions
  - Carried out the wireless dictionary attacks on the wifi routers to extract their details and be able to enter the network, we used tools like recon-ng, Wifite etc.
  - Learned to scan the networks using tools like Nmap and Zmap ( GUI-version ),
  - This helped us to find out the ports and services being run on the system and the servers
  - We worked on monitoring the network traffic using tools like Wireshark to look over the traffic
  - We also worked on various cyber attacks that are extremely prominent in these days
- i) SQL Injection, we used sql-map and did it manually by going through the source code
  - ii) Denial of Service, we worked on several DoS techniques and worked with botnets
  - iii) XSS Vulnerability, we ran our scripts on various web pages to understand its working.
  - iv) Dictionary attacks, we used John the ripper and Hydra to attack on the broken login pages

- IIIT Hyderabad - PSOSM workshop [June'17]

IIIT Hyderabad conducted a summer school regarding issues on the social media.

It was a one week program where we worked on different issues related to the security issues of social media

### **Responsibilities:**

- Discussed & implemented ideas that can be used in real world scenarios to enhance our security online
- How to share data online so as to maintain a decent level of privacy online.

- **NCPC & CEJ, Sri Lanka (Intern) [June'16 to July'16]**

As part of the IT team at Central Environment Justice, I worked with them & helped them to maintain and develop their website. Attended the roundtable meeting with UNESCO dignitaries and government workers of Sri Lanka at the press conference. Worked on "METABUILD" at NCPC, one of the pioneer environmental project of NCPC.

## Technical Expertise

### **Networking Technologies:**

- Excellent knowledge of OSI reference model and TCP/IP protocol suite.
- Good understanding over the concepts & troubleshooting of ARP, RARP, MTU, ICMP, UDP, TCP Windowing, TCP Congestion control.
- Routing protocols - EIGRP, IGRP, OSPF, BGP, RIP, Static Route, Default route.
- Good understanding of BGP & VPN.
- Application layer protocols: HTTP, HTTPS, FTP, DNS, DHCP, SNMP, SMTP, TFTP.
- Working experience on **LINUX/UNIX** based Servers.

### **Network Security:**

- Knowledge of stateless as well as stateful packet filter Firewall.
- Knowledge & troubleshooting - IPSec VPNs (Site to Site & Client to Site), SSL VPNs
- In-depth knowledge of Proxy and its functionality.
- Implementation of port security, DHCP snooping, ARP spoofing & DoS attacks.
- Knowledge of various DDoS attack types (UDP/ICMP Flood, SYN Flood, HTTP Get Flood, TCP Connection Attack, TCP Flag-based Attacks).

### **Network Analysis Tools:**

- Wireshark
- TCPdump
- Putty
- WinSCP
- VMware workstation
- VNC Server & Client

### **Cyber Security Tools:**

- BurpSuite
- Acunetix
- Netsparker
- Metasploit Framework
- Onion Security Tools
- Maltego (Network Mapper)
- Nmap / Zmap (Network Scanner)
- Hydra & John the Ripper (Dictionary & Brute-Force attacks)
- Netcat / Nessus / Nikto (Reconnaissance tools)
- Wget & Curl (download and scrap web pages)
- Dirbuster (directory traversal)

### **Programming / Scripting Language:**

- Excellent knowledge and understanding of C, C++, Java, SQL & Bash Scripting.
- I am also good with Web Dev languages like HTML, CSS, Javascript, PHP etc.

## Certificates

- CEH ( Certified Ethical Hacker ) by EC-Council  
Valid : Dec. 2018 - Dec. 2021
- CHFI ( Certified Hacking & Forensic Investigator ) by EC-Council  
Valid : Jan. 2019 - Jan. 2022
- ECSA ( EC-Council Certified Security Analyst ) by EC-Council  
Valid : Jan. 2019 - Jan. 2022

## Professional Achievement & Competencies

- Participated in the Google Startup Weekend in my first year, where our team won the prize for the innovative idea. Our idea was :-
  - > Created prosthetic arms & limbs using the 3D printing, helped to bring down the price more than 80%
  - > Introduced the idea of smart gloves, where one can command a robot using its motion

- Ranks at various Online Coding Platforms
  - > Currently I hold international rank #1 at HackerRank for both Java & Bash Scripting
  - > I have been at the top of the leader board of HackerEarth at CodeArena
- Bugcrowd ( Bug Bounty )
  - > Currently hold the rank 3349 with 100% accuracy while reporting bugs at the Bugcrowd platform.
  - > Reported 10+ vulnerabilities for companies like Western Union, SoundCloud, Atlassian Opsgenie etc.

## Research Paper

- Internet of Vehicles
  - > Publication date : 25th July 2018
  - > Publisher : International Journal of Engineering & Technology
  - > Development of next generation of intelligent transportation systems is imminent and we have put this paper forward keeping that in mind. In this idea we have tried to create a smart vehicle, combined together with various sensors, we aim to provide the driver a better and safe journey.

## Projects

- Recon - Firefox & Chrome Web add-on
  - i) I coded the web add-on by myself using the Javascript, to enhance the ease of search.
  - ii) The add-on work on the feature, you can search any text that is selected on the web browser
  - iii) Search that word on the social networking sites, search engines, video sites, translate it etc.
- I have been working on several Raspberry Pi projects, creating one after the another
  - i) Alexa Pi -
    - > It is made my integrating Alexa on the raspberry pi module
    - > Using scripts I automated the whole process of setting up the Alexa Pi
  - ii) Google Assistant -
    - > Integrated the google voice assistant on the Pi module and automated the whole process
  - iii) Pi-VPN -
    - > It utilises the OpenVPN to encrypt the network traffic from the device
  - iv) Pi-Hole -
    - > It is a network ad-blocking service, which blocks the whole ad traffic by blacklisting them
    - > Doesn't allow the blacklisted traffic on the network, increasing the speed and security of net
- Command Line Tools ( for Unix )
  - i) Crypt-it -
    - > It is a command line tool designed to encrypt hash messages and decrypt them using API
    - > It can also identify the hashing technique that might have been used to hash the plaintext
    - > The code to identify the hash has been hard-coded inside

## Educational Qualification

- Bachelor's of Technology (B.Tech.), Information Technology - 7.0 CGPA  
Current CGPA - 7.0 (end of 5th semester) - SRM University, Kattankulathur, Chennai, 2015 - 2019
- Higher Secondary Education - Physics, Chemistry, Mathematics - 84%  
Delhi Public School, Vindhyanagar ( 2013 - 2015 )
- Secondary Education - 95%  
Delhi Public School - Vindhyanagar ( 2000 - 2012 )

## Accomplishments

- Sports achievements :
  - > Table Tennis - Under 14 ( Nationals ), finished in top 16
  - > Volleyball & Badminton - District Level ( Singrauli )
- Published a book - The Lost Poet ( ASIN : B0792CYJM6 )
  - > This is a collection of short poems that I write in my free time.
- Lead Guitarist ( Band - Aashayein )
  - > We performed for near about 10 shows.