

# RAJ PASTAGIYA

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## OBJECTIVE

Cybersecurity professional with a strong interest in ethical hacking, penetration testing, vulnerability analysis, and network security. Forward-thinking, hard-working, energetic, personable, and technical-minded individual. Currently pursuing MS by Research degree at Indian Institute of Technology (IIT), Bombay, India, where I continue to develop and learn new abilities. I also possess:

- Experience in scripting languages including Python, Bash and Programming languages like Java and C
- Excellent time management skill, and ability to handle multiple projects simultaneously
- Experience with security toolkits such as Kali Linux, Metasploit, Burp Suite, etc.
- Proficient in software debugging and analyzing flaws

## EDUCATION

**Indian Institute of Technology (IIT), Bombay – MS By Research, Computer Science and Engineering (August 2022 – Present)**

- CPI: 9.57/10.0 (Till Semester 2)

**Indian Institute of Information Technology (IIIT), Vadodara – B. Tech., Computer Science and Engineering (August 2017- June 2021)**

- CPI: 8.50/10.0

## CERTIFICATIONS

- Offensive Security Certified Professional (**OSCP**) – Now **PEN-200**
- Offensive Security **PEN-100**
- Certified Ethical Hacker v10 (**CEH**)
- Post Graduate Program in Cybersecurity by Edureka, in affiliation with NIT Rourkela (GPA: 3.50/4.00)
- Certificate of Training in Ethical Hacking by Internshala

## TECHNICAL PROFICIENCIES

- **Programming/Scripting Languages:** Java, C, Python, Bash, SQL, Latex
- **Virtualization Software:** Docker, VMware, Oracle VM VirtualBox
- **Security Toolkits:** Metasploit, Burp Suite, Wireshark, OWASP Zap, etc.
- **OS, Web, and Network Security**
- **Active Directory Security**

## INDUSTRIAL EXPERIENCE

**Cognam Technologies Pvt. Ltd., Delhi, India**  
**Software Developer (Internship + FTE)**

January 2021 to August 2022

- **Technologies Used:** Java with Spring Boot, Hibernate, JDBC, Spring Data JPA, JUnit5 for backend web-application and unit testing, MySQL for backend storage, GitLab and Jira for version control, bug tracking and agile project management
- Worked with Java and Spring Boot web application development and testing to design and develop robust solutions to meet client requirements for new functionalities, scalability, and performance tuning
- Delivered unit-tested functionalities with required characteristics and within customer-prescribed timeframes
- Extensively worked with client code for new features, improvements, bug, and weaknesses using approved agile methods

## KEY PROJECTS AND RESEARCH

**Survey of Techniques Used for Cybersecurity Learning in Academic Environment**

*Research Seminar | Prof. Kameswari Chebrolu, IIT Bombay*

January 2023 to May 2023

- Reviewed pedagogically more engaging ways of training students for the cybersecurity domain in academic institutions
- Identified different limitations imposed in setting up security challenges, and most effective solutions proposed by researchers to overcome these challenges
- Identified different lab environment setups like server replication, virtualization software, and Raspberry Pi, and strategies used by various researchers and compared their results to find out the most helpful technique, especially in academic institutions

## Cybersecurity Content Creation for Academic Environment Setup

Research and Development | Prof. Kameswari Chebrolu, IIT Bombay August 2022 to Present

- **Technologies Used:** Python, and Docker for environment setup and auto grading, and security toolkits for scenario building and lab creation
- Created numerous practice scenarios for Web, OS, and Network Security, which includes creating virtualized docker environments serving as both offensive and defensive mindsets of labs.

## Developing Custom HTTP Server

Course Project

November 2022 to December 2022

- **Technologies Used:** C as programming language for HTTP Server, and HTML and CSS for serving dummy web-application
- Developed custom HTTP server capable of handling GET requests using C programming language and C advanced libraries relating to socket handling
- Explored and implemented multithreaded master-slave architecture as an enhancement.
- Performed performance testing and tuning to run upto 1000 threads parallelly in a virtual environment setup-based server

## Developing Low Level Honeypot IDS

B.Tech. Winter Project

November 2019 to January 2020

- **Technologies Used:** Java-8, Swing AWT Framework, and IntelliJ IDEA IDE
- Developed "Honeypot" technology-based IDS with graphical interface especially made for desktop users, which can store log information for future analysis

## POSITIONS OF RESPONSIBILITIES

**Core Team Member**, Cyber Security Community, IIT Bombay

June 2023 to Present

- Managed and organized multiple cybersecurity events such as workshop events like "Hacking via CTF", "Basics of Hacking", and institute wide CTF events
- Part of **IITBreachers**, the team responsible for representing IIT Bombay in CTFs and security competitions

**Teaching Assistant**, IIT Bombay

August 2023 to Present

- Assisted the professor of **Introduction to Cryptography and Network Security** in grading the course, creating and assessing labs including topics such as advanced cryptography, network security and web application security and made it designed according to the course content

**Core Member**, Trust Lab, IIT Bombay

June 2023 to Present

- Managed and organized national level CTF event called IITBCTF as part of Trust Lab, IIT Bombay
- Managed, and mentored 50+ students in 15 days long workshop event organized by Trust Lab, IIT Bombay
- Researching towards better and improved pedagogically engaging ways for education in cybersecurity domain

**Team Leader**, Cultural Event and Technical Festival, IIIT Vadodara

March 2019

- Managed and lead team of 5 to gather sponsorship worth 50,000 INR
- Successfully lead the team to win institute's annual CS-GO tournament

## EXTRACURRICULAR ACTIVITIES

- Ranked **3<sup>rd</sup>** in **Nullcon CTF** as team **IITBreachers**
- Secured **64<sup>th</sup>** position in Sekai CTF as team **IITBreachers** among **2000+** teams
- Among **top 2%** in TryHackMe and ranked as **Hacker** in HackTheBox
- Recently started posting blog posts on topics related to cybersecurity