# Satvik Padhiyar

| Academic Details | | | |
|---|---|---|---|
| Year | Degree | Institute | CGPA/ Marks(%) |
| 2023 | M.Tech Computer Science and Engineering(2Y/ NIS) | IIT Hyderabad | 8.28 |
| 2021 | B. TECH (Information Technology) | Charotar University of Science and Technology | 8.98 |
| 2017 | XII (GSHSEB) | Shri K G Dholakiya School | 73.23% |
| 2015 | X (GSHSEB) | St. Mary's School | 69.5% |

## Achievements in Cyber Security

- **Vulnerabilities in websites of Top IITs**
  - Found critical vulnerabilities in the admission portal of leading IITs namely **IIT Bombay, IIT Delhi, IIT Kanpur, IIT Guwahati, IIT BHU, IIT Hyderabad, IIT Tirupati, IIT Goa.**
  - The vulnerabilities discovered were capable of compromising the servers of these websites, jeopardising the integrity of the entire admissions process which can impact more than half a million students.
  - The vulnerabilities range from access control to  RCE (Remote Code Execution).
- **Vulnerabilities in the academic portal of IITH**
  - During the **acceptance testing** of the upcoming academic portal of IITH, discovered some critical vulnerabilities that might adversely impair the system's **confidentiality, integrity, and availability.**

## Internships

- **Cyber Security Summer Intern || Aegon Life, Mumbai**
  - Responsible for doing PoC of a vulnerability of management tool.
  - Responsible for vulnerability assessment and penetration testing to make the organization secure.
  - Responsible for running a phishing campaign to increase user awareness of phishing.
- **Full Stack Intern || Prolog Infotech, Rajkot**
  - Contributed to building a robust backend of Invoice Management System to handle high traffic efficiently.
  - The features include creating Invoices and sending Invoices and Managing Inventory.
  - Receiving payment from multiple gateways and creating an alerting system which alerts on triggers.

## Projects

- **Firewall using Socket Programming**
  - Developed a firewall that determines whether to **block** or **allow** communications to or from a computer based on a set of policies.
  - The policies configured can be dynamically modified at the run time.
  - Capable of detecting and preventing **denial-of-service** attacks on protected machines.
- **Secure Chat using OpenSSL and Man in the Middle Attacks**
  - Developed a reliable and secure chat application that employs the **TCP** and **TLS** protocols.
  - Developed a tool to test **downgrade** attacks.
  - Developed a tool to execute a **MITM attack** in order to intrude with chat communication.
- **IITH Campus Network Monitoring**
  - Deployed campus-wide network of Raspberry-pi which constantly monitors the network throughput.
  - It reports to the Computer Centre any anomalies with appropriate debug information.
  - This has drastically reduced the number of complaints as well as the TRT (Ticket Resolution Time).
- **Smart Gujarat Hackathon Management app**
  - The Real-time automation of monitoring attendance of all the participants alongside monitoring the count of students attending the number of food sessions allotted.
  - Even though the app was developed in a short span of 5 days. The concept was very well received by the inspection committee of the state government since the execution happened swiftly without one iota of error during the entire runtime of 36 hours and over 300 simultaneous users.
- **IIT notification Bot**
  - A bot which detects the changes in the websites of all the IITs and alerts in real-time for any changes.
  - Reduces the number of times to visit the website for any new notifications.
  - Integrated with discord to keep track of notification history.

## Achievements in Software Development

- **Winner of Startup Exhibition arena at Vibrant Startup and Technology Summit**
  - The summit witnessed 100+ incubated startups and some notable MNCs like Amazon Web Services, and Nasscom.
  - The conclusion of the startup summit witnessed a recognition drive to uplift potential startups where our team landed a victory despite the project not being incubated.
- Secured 2nd in Project competition Organized By U & P.U. Patel Department of Computer Engineering, CSPIT, CHARUSAT.
- Winner of Project Presentation at Computer Society of India (CSI) Regional Student Convention 2020 (Region - |||) .
- Won web design competition at Charotar University.
- Won Mobile Application Development Challenge at Charotar University.
- 2nd Runner up at Avishkar Tech Expo organized by CSI (Computer Society of India) at Charotar university.

## Skills

- **Programming Languages:**  C || C++ || Python || PHP* || Java*                              *Elementary Profciency
- **Tools & Technology:** Burp Suite || MetaSploit || John the Ripper || GIT || Wordpress || Nmap || OpenSSL || TcpDump || Augmented Reality
- **Reverse Engineering*:**  Ghidra || ILSpy || Apktool  || IDA
- **Application Technologies:** React Native || Android Development (Java)* || ARcore
- **Web Technologies:** HTML || CSS || JavaScript || React.js || Node.js || Gatsaby.js || Flask
- **Operating System:** Linux || Windows
- **Database:** MySQL || Firebase || SQLite

## Positions of Responsibility

- **Core committee for Smart Gujarat Hackathon**
  - University management appointed me as a member of the core committee which oversaw the execution of a state-level hackathon with 1200+ participants and was responsible for managing around 300 volunteers.
- **Placement Coordinator at IIT Hyderabad**

## Extracurricular

- Collaborated with **Progate**, an online learning platform, to conduct a hands-on workshop on web development which involved **300+ participants** both in and out of our campus.
- Also had the opportunity to judge the projects created by students during the Progate Webathon organized at end of Week-Of-Learning.