

EDUCATION

Johns Hopkins University, Baltimore, MD, USA

Aug 2022 – Dec 2023

- Degree: Master of Science in Security Informatics | GPA: 3.99/4 | TA: Security and Privacy in Computing (Fall 2023)
- Courses: Security and Privacy in Computing, Introduction to Cryptography, Cybersecurity Risk Management, Computer and Mobile Device Forensics, Network Security, Ethical Hacking, Mobile and Wireless Security

Indian Institute of Technology (IIT) Goa, India

Aug 2018 – July 2022

- Degree: Bachelor of Technology in Computer Science and Engineering | GPA: 3.64/4
- Courses: Introduction to Information Security, Computer Networks, Computer Architecture, Operating Systems, Data Structures and Algorithms, Artificial Intelligence, Machine Learning, Software Systems Lab

WORK EXPERIENCE

SiriusXM, Security Intern, New York, USA

May 2023 – Aug 2023

- Worked with the Application Security Team and collaborated with Security Operations Center (SOC) and Enterprise Security to actively contribute to a wide range of projects in a span of 10 weeks.
- Designed and implemented the curriculum for Developer Security Training for 1000+ engineers.
- Performed 30+ Security Risk Assessments and redesigned the evaluation process to make it 400% faster.
- Automated report notification system to improve Vulnerability Management for 25,000+ assets with Python.

Safe Security, Intern, New Delhi, India

June 2021 – Nov 2021

- Performed research on 230+ security controls to yield new insights and theories, analyzed data, and developed pseudo codes that advance the Outside In Security Assessments using NodeJS and Python.
- Strongly involved in investigating, analyzing, and learning from security researchers, adversarial techniques, and actual incidents to develop detection strategies for the cyber kill chain.

Winkl, Security Intern, Bangalore, India

Jan 2021 – May 2021

- Conducted penetration testing on web applications and implemented cloud and email security measures.
- Collaborated with the developers to fix the identified issues and recommend mitigation techniques.

PROJECTS

5G Sentinel: Threat Modeling and DoS Attack Mitigation in ABot-Simulated Cellular Networks

Sep 2023 – Dec 2023

- Worked on Capstone Project under Dr. Ashutosh Dutta to explore the security aspects of a 5G cellular network, with the main aim of understanding 5G Network Core components, and 3GPP functions and procedures.
- Simulated a 5GCN environment using the ABot and Grafana framework, developed a robust threat model, and implemented a rudimentary defense mechanism against Denial of Service (DoS) attacks.

Root the Ballot Box

Oct 2022 – Dec 2022

- Collaborated with a team to design a simulated electronic voting system, purposefully embedding known vulnerabilities to understand potential attack vectors and enhance the security framework.
- Identified and documented an external group's machine for vulnerabilities, both intentional and unintentional, applied ethical hacking techniques and best practices for ensuring electronic voting system integrity.

SolSec Labs

Jan 2022 – June 2022

- Built web-based virtual training labs for Solidity developers to learn Smart Contracts security vulnerabilities.
- Developed and deployed the project using React/Node JS and Netlify/Heroku at <https://solseclabs.netlify.app/>

LSB Image Steganography Tool

Oct 2020 – Dec 2020

- Implemented the Least-Significant Bit Steganography technique to hide messages inside RGB/RGBA images.
- Utilized prevalent Pillow and NumPy Libraries in Python to write the encoding and decoding functions.

TECHNICAL SKILLS

- Programming:** Python, Golang, C/C++, Javascript,
- Security:** Kali Linux, VAPT, OWASP Top 10, CTI, OSINT, MITRE ATT&CK, Cryptography, IAM, DevSecOps, NIST
- Certifications:** CompTIA Security+, Google IT Support Specialization, CNSS, Operationalizing MITRE ATT&CK for SOCs (Picus)
- Web/Cloud:** HTML, CSS, React, Node, SQL, MongoDB, Solidity, Git, Jenkins, Docker, AWS, GCP, DigitalOcean
- Tools:** Wireshark, Nmap, Burp Suite, Ghidra, Splunk, Okta, SentinelOne, SAST/DAST/SCA, SOC/SIEM/SOAR
- Productivity:** Microsoft Office, Google Suite, Atlassian Suite, Adobe Creative Suite, Slack, Zoom

ACHIEVEMENTS

- Selected for the 2023B class of Google's CS Research Mentorship Program (CSRMP)
- Gold Medal for Best Outgoing Student (Overall) from Class of 2022 at IIT Goa
- Certificate of Appreciation for Poster Presentation at ACM India Winter School on CyberSecurity 2020
- Winner of HackQuest 2020 Solo Jeopardy-style CTF, GirlScript Foundation, India

PUBLICATIONS

- Devang Jain and Sharad Sinha, "SolSec Labs: Virtual Labs for Learning Smart Contracts Security", IEEE Potentials (Published, Nov 2022) – <https://ieeexplore.ieee.org/document/9935793>

EXTRACURRICULAR AND VOLUNTEERING ACTIVITIES

- Co-founded IIT Goa's InfoSec Club, served as General Secretary of Academic Affairs, Film and Photography Club Head, Student Design Team Head and Class Representative at IIT Goa.
- Co-founder and Web Developer at Tokyo for India (tokyoforindia.org), a Covid-19 student-led fundraising initiative, raising over \$40,000 in donations in 2021 for marginalized communities across India.