

# Shyam Balaji S

Chennai, IN | P: +91 9489940713 | [ssb15.mdu@gmail.com](mailto:ssb15.mdu@gmail.com) | [Github](#) | [Linkedin](#)

## EDUCATION

---

### AMRITA UNIVERSITY

Bachelor of Technology

B.Tech in Computer Science and Engineering with Cybersecurity

Chennai, IN

Expected June 2026

## WORK EXPERIENCE

---

### Gaspar Solutions

Cyber Security Intern

Hybrid

Oct 2024 – Current

- Conducted penetration tests and vulnerability assessments on Web applications using Burp Suite, Netspark, Nmap identifying over 10 critical security threats and mitigating risks.
- Developed security reports detailing vulnerabilities, impacts, and actionable remediation, improving application security posture by 25%.

### TransAsia

Cyber Security Intern

Remote

May 2024 – Aug 2024

- Hands-on experience in ethical hacking, identifying and exploiting vulnerabilities in controlled environments. Proficient in risk assessment frameworks, enabling accurate identification of security risks and implementation of effective mitigation strategies.
- Demonstrated expertise in Vulnerability Assessment and Penetration Testing (VAPT), report preparation, and incident response. Effectively applied theoretical knowledge to practical scenarios, notably in tasks for Polycab.

### TCS

Cyber Security Analyst (Virtual Job Simulation)

Remote

Feb 2024

- Simulated IAM processes for TCS, collaborating with a team to implement security measures aligned with business objectives, ensuring compliance across user accounts.
- Acquired expertise in IAM principles, cybersecurity best practices, implementing security measures, strategic alignment with business objectives respond to security incidents.

## UNIVERSITY PROJECTS

---

### Malicious Url Detection

[Github](#)

- Implemented SVM, KNN, and LDA machine learning models for a Network Intrusion Detection System.
- Utilized advanced neural networks like LSTM and MLP, achieving over 90% accuracy.
- Optimized feature selection and preprocessing techniques to enhance model performance and detection accuracy.

### Bad USB Detection

[Github](#)

- Analyzed USB attack vectors and proposed mitigation strategies using AES encryption and secure coding practices in C/C++, reducing unauthorized USB actions by 40%.
- Implemented secure coding practices such as input validation and cryptographic key management, which strengthened system defenses and prevented 30 more unauthorized USB activities.

### Large Language Model (LLM) Detection And Analysis

[Github](#)

- Developed robust NLP models using TensorFlow, Jax, and PyTorch, integrated with Keras Core and Keras NLP libraries, focusing on detecting patterns in AI-generated text. Trained and evaluated AI-text detection models using the DAIGT ProperTrain Dataset, leveraging advanced preprocessing techniques and performance metrics like F1-score and accuracy.
- Implemented techniques such as lexical analysis and neural network-based classification to discern AI-generated text from human-written content, addressing concerns in misinformation detection.

### DDoS Attack Detection using Machine Learning

[Github](#)

- Designed a machine learning model to detect DDoS attacks, reducing detection time by 40% and identifying 100+ attack attempts across 10000+ network packets.
- Led end-to-end project lifecycle, coordinating with 4 team members to design system architecture, implement ML models, and deliver solution 2 weeks ahead of schedule.
- Enhanced network resilience, accurately identifying over 90% of real-time DDoS threats, improving system reliability.

## ACTIVITIES

---

### Gadgets Geek

Co-Founder & Content Creator

July 2024 – Present

- Co-founded a student-run website dedicated to sharing insightful blog posts on technology.
- Collaborated with peers to research, write, and publish articles on technology and cyber security.
- Applied skills in writing to ensure high-quality content and user experience.

## SKILLS & ABILITIES

---

**Programming Languages:** C++, C, Java

**Distributed Systems and Databases:** SQL, MySQL

**Blockchain and Cryptocurrency:** Smart Contracts, Decentralized Systems

**Cybersecurity:** Penetration Testing, IAM, Netspark, IBM Q Radar Wireless Network Security, Nmap, Wireshark, Burp Suite

**Tools and Frameworks:** Git, Github

**Technical Leadership:** Project Planning, Code Reviews, Team Mentoring, Technical Documentation

**Operating Systems:** Windows, Linux (Ubuntu, Kali, Parrot)

**Relevant Coursework:** Cryptography, Operating Systems (Practiced using Linux), Object Oriented Programming (C++), Secure Coding, Network Security

## CERTIFICATIONS

---

- Introduction to CyberSecurity - Cisco
- Ethical Hacking Offensive Security - Udemey

## ACHIEVEMENTS

---

- Secured 2nd position in the Ideathon at National Amrita Cyber Nation a National Level Tech Fest.
- Worked as part of a technical team to organize Capture the Flag (CTF) competitions, enhancing collaboration and planning skills
- Participated in several CTFs and hackathon projects, earning recognition for innovative solutions and technical expertise