

Amireddy Shashank Reddy

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Summary

Cybersecurity enthusiast with hands-on experience in smart contract auditing, web application security, and cryptographic analysis. Actively involved in CTFs focused on real-world exploitation and vulnerability research.

Education

Amrita Vishwa Vidyapeetham

Bachelor of Technology in Computer Science and Engineering (CGPA: 9.16)

2022 – Present

Bengaluru, Karnataka

Experience

Team bi0s

Nov 2023 – Present

Cryptanalyst & Blockchain Security Researcher

Kerala, India

- Conducted security research in cryptography and blockchain systems, focusing on vulnerability discovery and exploitation in Ethereum smart contracts.
- Audited smart contracts and developed attack vectors for issues such as reentrancy, delegatecall abuse, and flawed access control mechanisms.
- Performed advanced cryptanalysis of classical and modern ciphers through hands-on challenge development and competitive problem-solving.
- Part of the core CTF team, regularly solving challenges in weekly CTFs and mentoring new members in crypto and smart contract topics.

Traboda CyberLabs

May 2024 – Dec 2024

Software Development & Security Intern

Kerala, India

- Authored and contributed cybersecurity challenges for Traboda Arena and AFRRIC CTF, a continent-wide CTF for Africa.
- Conducted security research focused on cryptographic challenges and contributed to designing CTF problems.
- Assisted in infrastructure and server management for hosting national and international CTFs, including government-led events.
- Helped identify and patch vulnerabilities in internal applications, ensuring secure deployments and system integrity.

Projects

Ethernaut – Smart Contract Security Lab | Solidity, Foundry

April 2025

- Completed all levels of OpenZeppelin's Ethernaut, a hands-on smart contract security wargame designed to simulate real-world vulnerabilities.
- Identified and exploited critical issues such as reentrancy, delegatecall misuse, tx.origin flaws, and improper access controls.
- Utilized Foundry for scripting and debugging exploits, reinforcing best practices in secure smart contract development.

Advanced Audio Encryption System | Python, AES, Cellular Automata (Rule 30)

July 2024

- Designed and implemented a robust audio encryption system by combining AES with Rule 30 of cellular automata to enhance security and mitigate known cryptographic attacks.
- Demonstrated resistance to vulnerabilities traditionally associated with standalone AES through added entropy and nonlinear state evolution.
- Published and presented at the 15th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2024); accepted by academic peer review.

Technical Skills

Programming: Python, C/C++, SageMath, Solidity, SQL

Security Tools: Foundry, OpenZeppelin, Ganache, Burp Suite, Wireshark, CyberChef

Developer Tools: Git, Docker, Remix IDE

Certifications

Certified Cyber Security Analyst (C3SA) – Premium Edition	August 2024
<i>CyberWarFare Labs</i>	<i>View Credential</i>
<ul style="list-style-type: none">Completed a hands-on cybersecurity training program covering Web, Network, OS, and Cloud exploitation.Gained experience with local cyber lab setup, attack simulation, and security operations fundamentals.Demonstrated skills in threat detection, vulnerability analysis, and basic penetration testing.	

Positions of Responsibilities

bi0sblr CTF Team Team lead	July 2024 – Present
<ul style="list-style-type: none">bi0s is India’s No. 1 ranked CTF team and Cyber Security research club since 2016.Executed performance improvement strategies with a focus on strategic thinking, analyzing strengths, and addressing areas for growth to meet evolving cybersecurity challenges.Spearheaded internal team recruitment drive, overseeing the recruitment of 15+ new members, aligning with team values and enhancing expertise.	
bi0s Meetups Organizer	May, 2024 – Present
<ul style="list-style-type: none">Part of the core organizing committee for 12+ high-impact cybersecurity meetups hosted at venues like Flipkart, Myntra, Meesho, Microsoft, and CloudSEK.Supported event planning, logistics, and speaker coordination for theme-based sessions on reverse engineering, malware analysis, exploit development, and GenAI security.Helped conduct monthly events engaging approx. 200 students and professionals from diverse domains in the cybersecurity community.	

Achievements

<ul style="list-style-type: none">Member of bi0s, India’s top-ranked CTF team, actively participating in national and international cybersecurity competitions.Secured 3rd place in ShunyaCTF hosted by MIT-ADT Pune.Completed all levels of Ethernaut by OpenZeppelin using Foundry, showcasing smart contract security skills.Won 2nd prize in Forge GG Hackathon for developing an AR-based Instagram filter game.Won the Most Innovative Award in AI Hackathon conducted by IEEE Computational Intelligence Society.	
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Extracurricular

National Cadet Corps (NCC) - Air Force	June 2018 – May 2020
<i>Cadet</i>	<i>NCC</i>
<ul style="list-style-type: none">Active NCC-Air Force participation, fostering discipline, leadership. Strengthened teamwork, problem-solving, and sense of responsibility, organized approaches. Gained valuable insights into the principles of aviation and military operations.	