

RAGAVAN B

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EDUCATION

Indian Institute of Information Technology, Sri City

Aug. 2023 – Present

B.Tech in Computer Science Engineering

TECHNICAL SKILLS

- **Programming Languages:** C, Python, JavaScript, Java, Bash. Comfortable with scripting, debugging, and low-level programming.
- **Networking & Protocols:** TCP/IP, DNS, HTTP(S), DHCP, ICMP, ARP. Proficient in traffic analysis, packet crafting, and network security.
- **Operating Systems:** Linux (Debian, Arch), Windows. Experienced in system administration, low-level debugging, and exploit testing across platforms.
- **Cybersecurity Tools:** Wireshark, Ghidra, Burp Suite, Binary Ninja, IDA Pro, Nmap, GDB. Experience in basic exploitation, reverse engineering, and traffic analysis.
- **Cryptography & Encryption:** Familiar with symmetric encryption (AES), asymmetric encryption (RSA, ECC), and secure key exchange. Studying protocol weaknesses and cryptanalysis.
- **Advanced Security Design:** Interested in homomorphic encryption, Pedersen commitments, and zero-knowledge proofs (ZKP) for trustless, privacy-preserving systems such as secure identity verification and encrypted computation.
- **Web Development:** HTML, CSS, JavaScript, ejs, Node.js, Express, MongoDB. Built simple web apps with user auth and REST APIs.
- **Database Systems:** Familiar with database design and querying using both SQL (MySQL, PostgreSQL) and NoSQL (MongoDB) systems.
- **Version Control & Containerization:** Comfortable with version control (Git) and containerization tools like Docker for reproducible development and deployment environments.

EXPERIENCE

ENIGMA Club

Core Member – System Software Domain

IIIT, Sri City

Aug 2023 – Jan 2025

- Collaborated with peers in a student-led tech club exploring cybersecurity, reverse engineering, and system-level programming.
- Gained hands-on exposure through participation in CTF challenges and internal knowledge-sharing sessions.

ACHIEVEMENTS

- Ranked **23rd out of 20,000+ participants** in **Pentathon 2025**, a national-level cybersecurity competition organised by the Ministry of Education - Innovation cell, India. Solved web, forensics, reverse engineering and cryptography challenges.
- Secured **723rd place out of 8,130 teams** in **Hack The Box – Cyber Apocalypse CTF 2025**, competing in categories including crypto, pwn, forensics, and misc.

RESEARCH INTERESTS

- Defensive security with an emphasis on secure-by-design principles, memory safety, and vulnerability mitigation in low-level systems and embedded environments.
- Researching advanced privacy-preserving systems using zero-knowledge proofs (ZKPs), zk-SNARKs/STARKs for anonymous authentication and secure identity systems.
- Exploring applications of homomorphic encryption, Pedersen commitments and multi-party computation (MPC) to enable computation on encrypted data without compromising privacy.