AARAV SHARMA

Computer Science Student | Blockchain & Security Enthusiast

I am a dedicated computer science student with a strong interest in **blockchain technology, cryptographic security, and decentralized applications**. My passion lies in exploring how blockchain can enhance transparency, integrity, and security in real-world applications, particularly in secure voting systems.

Skills & Expertise:

- **Blockchain Development:** Experience with Ethereum, Hyperledger, and smart contracts (Solidity).
- **Cryptography & Security:** Understanding of cryptographic protocols, hashing, and encryption techniques for secure transactions.
- **Full-Stack Development:** Proficient in web technologies (React, Node.js, PostgreSQL) for building user-friendly blockchain-based applications.
- **Consensus Mechanisms:** Knowledge of Proof of Work (PoW), Proof of Stake (PoS), and Byzantine Fault Tolerance (BFT).
- **Distributed Systems:** Familiar with peer-to-peer networking and decentralized architectures.

Relevant Experience & Projects:

- **Decentralized Voting System (Personal/Academic Project)**
    - Designed a prototype for a blockchain-based e-voting system ensuring **tamper-proof, verifiable, and anonymous** voting.
    - Implemented smart contracts on Ethereum to securely store and count votes.
    - Developed a web-based interface to allow voters to cast and verify their votes.
- **Secure Blockchain Transactions (Project/Research)**
    - Studied vulnerabilities in traditional blockchain-based voting mechanisms.
    - Explored **Zero-Knowledge Proofs (ZKP)** to enhance voter privacy.

Why This Project?

I am excited about the opportunity to contribute to a **secure and transparent voting system** that leverages blockchain technology to ensure **trust, auditability, and accessibility**. I look forward to collaborating with a team focused on **innovation and security** in electoral processes.

Would love to discuss further how my skills align with the project!