

Pushkar Singh

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EDUCATION

VIT Bhopal University, Bhopal, Madhya Pradesh

B.Tech in Computer Science & Engineering, Specialization in Cyber Security and Digital Forensics

Sep22 - May26

CGPA: 8.38/10

TECHNICAL SKILLS

Cybersecurity & Blockchain Security: Ethical Hacking, Blockchain Security, Smart Contract Auditing, Cryptographic Hashing (SHA-256)

Programming Languages: Java, Python, JavaScript, Solidity

Blockchain Development: Solidity, Ethereum, ThirdWeb, MetaMask

Databases: MySQL, Appwrite

Tools: Twilio, Wireshark, Git

PROJECTS

Crowd\$: A Web3 Blockchain Crowdfunding Platform

Nov24

- Developed and audited smart contracts in Solidity to enforce secure fund management and transparent transaction logic on the Ethereum blockchain.
- Implemented secure access control mechanisms within the contract functions to prevent unauthorized campaign creation or fund withdrawal.
- Integrated ThirdWeb SDK and MetaMask to create a secure client-side interface for blockchain interactions, ensuring private key management remained user-side.
- Focused on mitigating common smart contract vulnerabilities such as reentrancy and access control flaws during development.

CareConnect: HealthCare application

Aug24

- Engineered a full-stack application with a security-first mindset, prioritizing the protection of sensitive Patient Health Information (PHI).
- Leveraged Twilio's secure API for encrypted communication of appointment alerts, reducing SMS-based phishing risks by providing verified messages.
- Utilized Appwrite for backend operations with a focus on secure database queries and validation to mitigate injection attacks, improving data handling security.

BlockSecure: Blockchain File Verification System

July25

- Designed and deployed a blockchain-based system for cryptographically secure file integrity verification and timestamping.
- Developed Solidity smart contracts to immutably store file hashes, creating a trusted and auditable proof-of-existence.
- Implemented the SHA-256 hashing algorithm to generate unique digital fingerprints for files, ensuring any tampering is detectable.
- Optimized contract functions using batch processing to reduce gas costs by 40%, enhancing the system's efficiency and cost-effectiveness for large-scale integrity checks.

ACHIEVEMENTS

- Hack Z'24 - Collaborated in the Hack Z'24 hackathon organized by the CSEA of Anna University Chennai developing a real-time crowdfunding platform termed as CrowdS and also won the first track prize in Blockchain Track Nov24

CERTIFICATIONS

- Completed Certified Ethical Hacker CEH v12 by EC-Council and Secured 121/125 marks Dec24
- Completed IBM Blockchain Developer by IBM May25

CO-CURRICULAR

- Led a peer team to First Prize in the Blockchain Track at Hack Z'24, a national-level hackathon hosted by Anna University, Chennai, standing out among 500+ submissions from 324+ colleges as part of a co-curricular achievement Nov24
- Participated as team member in Smart India Hackathon 2024 and created an AYUSH Startup Registration Portal aims to streamline the registration process for startups Aug24 - Dec24

EXTRACURRICULAR

Keyboard Piano: Professionally trained in playing Keyboard Piano with Senior Diploma from Prayag Sangeet Samiti and performed in various events

Football Player: Participated as goalkeeper in inter school and district level football tournaments

ADDITIONAL

Languages: Hindi (Fluent), English (Fluent)