Arijit Guha

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EDUCATION

Indian Institute of Technology, Dhanbad   2020 - 2024
Bachelor of Technology in Electronics and Communication Engineering   *CGPA: 8.03/10*

EXPERIENCE

Disecto   May 2023 - July 2023
Privacy and Security Engineer,Internship
- Worked as an intern to develop encryption techniques for the privacy framework of the company, improving data security by 30%.
- Designed a tailored library utilizing El-Gamal and Diffie-Hellman cryptographic techniques, achieving a 25% reduction in encryption time compared to prior methods.

Japan Third Party   Feb 2024 - April 2024
Software Engineer,Internship
- Contributed to the enhancement of the Choregraphe platform, which is utilized for training robots, improving their overall functionality and performance.
- Conducted budget analysis that optimized cost efficiency by 15%, reallocating resources effectively to meet project goals.

PROJECTS

Oswap
Github
- Created a full-stack dockerized wargame to teach web exploitation techniques, garnering over 100 unique users in the first month.
- Implemented Cronjob to sync containers and covered concepts such as XXE,SQLi,RCE,shell uploads, and type juggling.

Crypto Staking App
Github | Demo
- Developed a decentralized staking web-app allowing users to buy and stake ERC20 token, claim rewards with a locking period of 1 day
- Implemented admin functionality for managing staking pools, updating token contracts, and tracking user investments.

Crypto Exchange
Github
- Developed a decentralized exchange (DEX) using Uniswap V3 protocol, enabling token swapping and liquidity management.
- Utilized the Uniswap SDK for seamless integration of token swapping functionalities and liquidity pool interactions.

Song Recommender AI
Github
- Designed a web-app using React and Flask that recommends songs based on user inputs with an accuracy of 85% .
- Integrated a machine learning model trained on a Kaggle dataset to recommend songs using K-means clustering and cosine similarity.

Real Estate Dapp
Github
- Established a blockchain platform for secure real estate transactions using smart contracts.
- Implemented NFT-based ownership transfer and designed an escrow contract to ensure secure transactions between buyers and sellers.

ACHIEVEMENTS

- GOLD Medal at InterIIT Tech Meet 11.0 on statement given by Saptang Labs - "Sneaking into Cybercracks"
- 1st place in ScytheCTF (IIT Roorkee) and Xpecto 22 (IIT Mandi).
- 2nd place in Sacramentum CTF 2021 (Arizona State University) and GLSC CTF (Michigan Technological University).
- 3rd place at PicoCTF 23 (Undergraduate Category, Carnegie Mellon University).
- Global Rank of 457 (all-time best) in Hack The Box and a rank within Top 2% in TryHackMe
- Member of CTF Team ranked 6 in India and 69 worldwide in 2021

SKILLS

- **Languages:** C, C++, Python, JavaScript, Bash, Solidity, SageMath
- **Frameworks and Tools:** Flask, NodeJS, ExpressJS, ReactJs, NextJs, Docker, Linux, Git, Sanity
- **Web3:** EtherJS, Hardhat, Openzeppelin, IPFS, Foundry
- **Security:** Cryptography and Hashing, Digital Forensics, Pwntools, WireShark, GDB, Volatility
- **Databases:** SQL, SQLite, MongoDB
- **Course Work:** DSA, OOP, Computer Networks, Cryptography, OS, Cryptocurrency, ML, Deep Learning
- **Online Courses:** TCM Ethical Hacking, Pwn.College Cryptography Course by ASU, BlockChain Specialization by Buffalo University, Bitcoin for Developers by Slayor Academy, Bitcoin for Everybody by Saylor Academy, ML Specialization by Andrew Ng

POSITIONS OF RESPONSIBILITY

- Division Head at CyberLabs Infosec Division
- Core Member of Technical team of HackFest'22