Viswanath Kapavarapu
viswanath.iit@gmail.com | +91-(0) 8639855513
Github Accounts: https://github.com/vishvaultbank
https://github.com/viswanathkgp12
Docker Hub: https://hub.docker.com/u/vishy12

SUMMARY

Blockchain Developer with 3 years of experience in software development, mainly associated with de-centralized networks such as Bitcoin, Ethereum, IPFS. Worked on hardware devices core modules such as libusb/scsi mass storage, pcsc for data transfer using programmable USB and NFC/RFID tags

Proficient in Ethereum/ Solidity, Python/Django, Geth, Web3.js, IPFS, Node JS and C

PROFESSIONAL EXPERIENCE

TOKENVAULT, BANGALORE **Nov 2018 - Present**

HSM based Offline Custodian Wallets

Offline storage of a reserve of cryptocurrencies, the attack surface and risk of theft hence greatly reduced. Specifically, FIPS compliant Hardware Security Modules are used to store private keys.

- Implemented offline multi signature wallets based on HSM's for Bitcoin/LItecoin/Ethereum/EOS
- Worked on HSMs for cryptographic key generation and signing for ECDSA/SECP256K1, ECDSA/SECP256R1
- Identify and assess the security threats in the wallet implementation architecture such as HSM risks of being online, prevention of replay attacks for payment requests, ensuring idempotency, segregation of data for online and offline servers for multisig. wallet generation and signing ceremony
- Transfer of wallet operations data from offline HSM's to online servers using Programmable USB Switch
- Worked specifically on libusb and SCSI Mass Storage modules for data transfer using Programmable USB
- Worked on NFC based data transfer, for enabling communication between offline and online servers

ZEONLAB, MUMBAI **May 2017 – Nov 2018**

Verified On Chain

Verified-On-Chain allows universities and employers to issue certificates/ badges on Ethereum blockchain.

- Handled user account management via BIP-32 based Hierarchical Deterministic Wallet Provider
- Wrote Solidity Smart Contract to map the SHA256 for a batch of certificates to be issued as a Merkle Tree;
- Developed REST-based APIs to integrate the Blockchain layer with backend systems using Django/Python
- Optimized gas price conditions on Ethereum Network; reduced Gas fee by 15%

TRADE FINANCE APPLICATION

An Ethereum DApp to orchestrate cross-border trade finance among multiple parties with minimum efficiency loss.

- Stored all documents involved- e.g. invoices, purchase orders, agreements- on IPFS; recorded the relevant hashes into Smart Contract and automated payouts in Ether on maturity of letter of credit
- Developed the backend using a Node.js server to communicate between the web app and EVM
- Integrated Smart Contract functions using INFURA's Web3 provider

DIRECT BENEFIT TRANSFER APPLICATION

An Ethereum DApp to enable direct benefits transfer from government to citizens without leakages

- Implemented KYC based direct benefit transfer on Blockchain for all relevant parties involved
- Deployed and implemented the business logic on top of Ethereum using an ERC-20 token
- Deployed a lightweight Ethereum node to serve as a Web3 provider for Smart Contract interactions
- Implemented ERC 721, auction contracts on Solidity along with test cases using Truffle framework

EDUCATIONAL DETAILS

IIT Kharagpur Chemical Engineering, 2013-2017; CGPA: 7.72 / 10.0

CERTIFICATIONS

- Docker/Kubernetes Certification
- IBM Blockchain Foundation Developer
- IBM Blockchain Essentials