

VISWANATH KAPAVARAPU

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Github: <https://github.com/vishvaultbank>(Work)

<https://github.com/viswanathkgp12> (Personal)

PROFESSIONAL EXPERIENCE

TOKENTECH R&D, BANGALORE | BLOCKCHAIN DEVELOPER

NOV 2018 - PRESENT

ONSA(onsa.com)

- Tokenization of Franklin Templeton backed [Investar Money Market Funds](#)(MMFs) on Stellar Blockchain Platform
- Integration with third party providers for managing the exchange keys required in the initial phase
- Designed and developed REST API backend for issue/burn of assets, establishing trust lines, buy/sell and other token related operations using Stellar Channels

CUSTODIAN WALLETS

Offline custodial wallets on HSM (hardware security modules) for the storage of a reserve of cryptocurrencies.

- Implemented wallets in a multi-signature fashion for PoW and DPoS Blockchains including Bitcoin, Litecoin, Bitcoin Cash, Ethereum, EOS and Stellar
- Worked on Thales nShield Connect HSMs for cryptographic key generation, signing and verification specifically for ECDSA/SECP256K1, ECDSA/SECP256R1 and Ed25519 curves
- Identified security threats in the wallet implementation architecture such as prevention of replay attacks for payment requests, ensuring idempotency and implemented necessary checks
- Developed data transfer mechanism from offline HSM's to online servers using Programmable USB Switch
- Setup and maintenance of Blockchain Nodes for mainnet, testnet and regtest environments

ZEONLAB, MUMBAI | BLOCKCHAIN DEVELOPER

MAY 2017 - OCT 2018

VERIFIED ON CHAIN

Provable issuance of certificates and badges on Ethereum Blockchain by universities and employers.

- Handled user account management via BIP-32 based HD Wallet Provider
- Implemented Solidity Smart Contract for optimal issuance of credentials grouped as a Merkle Tree
- Developed REST-based web services 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

Hyperledger Fabric (V1.0) based decentralized application to orchestrate cross-border trade finance among multiple parties with minimum efficiency loss.

- Developed chain code for handling business logic involving purchase orders, invoices and other documents in Go Lang.
- Wrote setup and maintenance scripts for bootstrapping network of orderers and peers of participant organizations
- Implemented REST APIs on the backend using Fabric NodeJS SDK to communicate with the ledger

EDUCATION

IIT Kharagpur – Dual Degree, Chemical Engineering, 2012-2017

Cumulative Grade Point Average (CGPA): 7.82 / 10.0

TECHNICAL EXPERTISE

- Proficient in NodeJS/Typescript/Javascript(ES6), Python/Flask/Django, C, Solidity/web3.js, docker, RabbitMQ, shell script(basic) and MySQL, MongoDB databases
- Experienced with de-centralized networks including Bitcoin, Bitcoin based altcoins, Ethereum, EOS, Stellar, Hyperledger Fabric and IPFS (Basic).
- Worked on hardware security modules (HSMs) and PKCS11 for private key management(PKI infrastructure) in a Trusted Execution Environment
- Worked on hardware devices core modules such as libusb/scsi mass storage, pcsc for data transfer using programmable USB and NFC/RFID tags
- **Certifications:** [Docker/Kubernetes Certification](#), [IBM Blockchain Foundation Developer](#), [IBM Blockchain Essentials](#)