Ravi Sree Kashyap Kompella

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Recent graduate with research interest in zero-knowledge proofs and web3, specializing in solution engineering for blockchain networks. Proven experience in software engineering, and solutions with an ability to understand business requirements, create prototypes, and delivered tailored product implementations.

WORK EXPERIENCE

Northeastern University **Jan 2023 –May 2023**
Teaching Assistant *Massachusetts, US*

- Assisted in teaching Software Quality Control and Management (INFO 6255) and Automation testing tools like Selenium.

Synopsys **June 2022 – Jan 2023**
Prototype Research Investigator Intern *Massachusetts, US*

- Delivered a performance-efficient Scan Client in Go language to analyze projects and identify source component signatures.
- Implemented techniques to detect Archives with multiple compression types and examine magic numbers in file byte data.
- Boosted application performance by 33% by deploying a Multi-Threaded, In-Memory, Thread-Safe Go language application.
- Reduced application testing time by generating Protocol Buffers and automating testing scripts to compare signatures.
- Implemented mutex locks to ensure thread-safe operations and prevent race conditions enhancing overall system stability.

Oracle Corporation **Jun 2020 – Aug 2021**
Blockchain Research Engineer *Massachusetts, US*

- Implemented login protocol leveraging BLS Elliptic Curves, X.509 digital certificates to verify identities of network actors.
- Conducted research on integrating privacy-preserving systems, non-interactive knowledge proofs, and coin-toss protocols.
- Analyzed scalability advantages and disadvantages of DAG consensus in comparison to the traditional Blockchain model.
- Developed expertise in DAO governance protocols, smart contract auditing, and proficiency in deploying Geth Clients.
- Utilized cryptographic key pairs for digital signatures, ensuring integrity and authenticity of messages in the network.

Oracle India Pvt Ltd **June 2018 – May 2020**
Associate Cloud Engineer *Bengaluru, KA, India*

- Worked on building RAFT leader elections and heartbeats with gRPC implementation among the nodes in Go language.
- Leveraged GoRoutines and channels, to develop concurrent, multithreaded applications to increase transaction throughput.
- Developing REST APIs with Python and integrating them into low-code applications for enhanced data integration.
- Utilized gRPC protocols for efficient and reliable communication enabling seamless integration and improved performance.
- Developed and deployed smart contracts in Go language with token taxonomy in Hyperledger Fabric and Ethereum.
- Enabled user roles as in Access Control Lists, smart contract instantiation, and an API gateway interface for chain code.

EDUCATION

Northeastern University **May 2023**
Master of Science in Information Systems *Boston, MA*

Amrita Vishwa Vidyapeetham **May 2018**
Bachelor of Technology in Computer Science *KA, India*

PROJECTS

Blockchain-Enabled Drug Traceability Management System

- Developed a blockchain system using Hyperledger Fabric to enhance traceability eliminating the risk of counterfeit drugs.
- Designed and developed smart contracts in Solidity to automate validation and secure storage of private transaction data.

Intelligent Infection Control Risk Assessment

- An innovative solution aimed at controlling infections and standardizing the auditing processes in healthcare facilities.
- Implemented prototype for infection prevention and control measures resulting in reduction of hospital-acquired infections.

Machine Learning Model for Carbon Footprint Tracking

- Implemented model to track carbon footprints by developing a network that predict emissions from transportation activities.
- Created a web-based dashboard that displays real-time carbon footprint metrics and visualizes emission reductions achieved.

Decentralized Intercompany Billing System

- This innovative system is built on a Layer1 Fabric Ecosystem to support intercompany contracts, billing, documentation, interfaces, reporting, reconciliation, and treasury functions, among other aspects of the intercompany capabilities model.

SKILLS

- **Programming/Scripting Languages**: Go, Java, Python, C, VB, Shell, Circom, Solidity, Terraform.
- **Data Management:** Oracle Database, Oracle ADW, MongoDB, MySQL, NoSQL, Couch DB, DynamoDB.
- **Certifications**: OCI Architect Professional, OCI Developer, Autonomous Database Specialist, IBM Blockchain Developer.
- **Interests:** Basketball**,** Football, Soccer, F1, Running, Hackathons, Seinfeld, Toastmasters.