Dhiran Kumar Yadav

Senior Software Developer

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SKILLS

- **Languages:** Golang, Rust, Java, TypeScript, Python, C/C++, Bash
- **Backend:** Gin, Mux, gRPC, Protobuf, Kafka, RabbitMQ, Hyperledger, REST API, Web Socket
- **Databases:** SQL, NoSQL, MySQL, CouchDB, MongoDB, PostgreSQL, ElasticSearch, Redis, Memcached, KeyDB, LevelDB
- **DevOps:** Git, Bitbucket, CI/CD (Jenkins, GitHub Actions), Docker, Kubernetes, Terraform, Grafana
- **Cloud:** GCP, AWS
- **Others:** Microservices, Monolithic Architecture, Distributed Systems, Event-Driven Architecture, Unit Test, Jira, Swagger, Postman, Figma, Draw.io

EXPERIENCE (3+ YOE)

Spydra Technologies Pvt Ltd, Hyderabad   Dec 2022 - Present
Software Engineer (Dec 2022 - Nov 2023), Senior Software Engineer (Dec 2023 - Present)

- **GSEC - Government Securities Bond Network:**
  - Developed GSEC network application using Hyperledger Fabric for government bond auctions and bids by banks.
  - Implemented smart contracts for auction creation by RBI and bid placement by banks, ensuring secure and transparent transactions.
  - Created a bridge to integrate GSEC with WCBDC network, locking funds during the auction process and ensuring seamless asset transfer.
  - Developed APIs for bridge event handling and communication between GSEC and WCBDC networks.
  - Implemented and utilized design patterns such as Factory and Abstract Factory to streamline smart contract functionality.
- **RSA Accumulator for Blockchain:**
  - Implemented an RSA accumulator to maintain and update the status of each asset at the L1 level in a blockchain.
  - Developed a mechanism for cross-verifying asset existence across networks via a bridge, ensuring transaction validity.
  - Enhanced system security and integrity by preventing double-spending and unauthorized transactions.
- **Blockchain Backend for IMPS:**
  - Employed the Dragonboat and Raft protocols, resulting in a two-fold increase in TPS, while ensuring data consistency and availability across multiple nodes.
  - Conducted extensive testing and debugging, ensuring high reliability and fault tolerance resulting in 76
  - Collaborated with the client's internal teams, providing technical guidance for seamless integration.
  - Leveraged design patterns like Factory and Abstract Factory for modular and reusable code.
  - Improved memory management and resolved crashes by implementing GOMEMLIMIT go flag and optimizing garbage collection.
- **Blockchain Network Bridge:**
  - Designed a communication bridge protocol between two private blockchain networks.
  - Implemented the bridge to have communication using a grpc server with two modes: message mode and asset transfer mode.
  - Implemented pubsub, keydb database to store cross-chain transaction IDs and payloads in Bridge 1 and Bridge 2 for both networks.

ZopSmart, Bengaluru   Jan 2022 - Nov 2022
Software Engineer

- **Golang Training Program:** Completed a rigorous two-month Golang training program, demonstrating proficiency in Golang programming by developing and deploying several CRUD projects.
- **testpaper.app:**
  - Led the backend development of testpaper.app with Golang, implementing microservices architecture for enhanced scalability and maintainability.
  - Engineered a robust backend, creating RESTful APIs with Gofr library and Golang for optimal performance.
  - Expertise in containerization with Docker Compose files and Dockerfiles, ensuring seamless deployment.
  - Established CI/CD pipelines for automated testing, building, and deployment, improving project efficiency.
  - Innovated proctoring and payment features, seamlessly integrated into microservices for an enhanced user experience.
  - Deployed testpaper.app, managing numerous placement tests concurrently with thousands of users, showcasing robust error handling and fault-tolerant mechanisms, significantly enhancing system reliability.
- **REST APIs with Swagger:** Developed and documented REST APIs using Swagger, ensuring clear communication with other developers and stakeholders.
- **API Optimization with Apache JMeter:** Optimized and refactored APIs for improved performance. Tested APIs using Apache JMeter to ensure optimal performance.

EDUCATION

National Institute of Technology (NIT), Agartala   2018-2022
Bachelor of Technology - Production Engineering

Relevant Courses: *Data Structures, Algorithms, etc.*

Extracurricular: *State Rank in Akanksha 40 Jharkhand Fellowship Exam 2016, Co-Founder & Roll Cage Head, Xanthronz Collegiate Team - NIT Agartala (SAE BAJA Competition 2021)*