Noor Mohammed B

Blockchain Developer - substrate/rust

+91 9746580702   noormohammedb@protonmail.com   Dubai, UAE

in/noormohammedb   github.com/noormohammedb   x.com/0xnoormohammedb

Profile

I am a passionate blockchain developer with over two years of experience in full-stack development. Recently graduated from the Polkadot Blockchain Academy, I am skilled in building APIs with Actix Web, Tokio, and Axum. I am proficient in Rust with a deep understanding of its ecosystem, coupled with experience in Node.js and TypeScript. Since 2017, I've been an advocate in the blockchain space with a proven track record of winning hackathons with Ethereum, Polygon, and other blockchain technologies.

Skills

Polkadot SDK Substrate - AWS - Node.js Express - Nginx - TokioAxum - Git - PM2 - SSH - ActixWeb - VIM - Certbot - TypeScript - IPFS - Linux - DevOps - Docker - GraphQL - Gitlab CI - K8s

Professional Experience

Software Developer, *(GnG Innovations)*   **Dubai, UAE** *06/2022 - present*

- Developed real-time WebSocket chat system using Node.js with Socket.IO for seamless communication.
- Designed and implemented backend APIs using Node.js with TypeScript, ensuring efficient data flow and processing.
- Developed backend systems in Rust using SQLx for migrations, Tokio for asynchronous programming, and Axum for web APIs. Integrated SMTP for email functionality and managed JSON with serde-json. Implemented JWT for authentication.
- Configured NGINX reverse proxy to efficiently route incoming requests to Node.js and Rust backend APIs.
- Deployed React Next.js frontend websites and stored assets on AWS S3 buckets for efficient asset management.
- Managed Azure cloud infrastructure for deployment, ensuring scalability, availability, and security of applications.
- Led team setup efforts by hiring and onboarding new developers, fostering a collaborative and productive work environment.
- Collaborated with clients to brainstorm and refine product ideas, translating concepts into functional systems to meet project requirements.

Blockchain Developer, *(LinkDot.xyz)*   **Banglore, IN** *08/2022 - 10/2022*

- Joined LinkDot.xyz as the sole blockchain developer, rearchitected the entire product for maximum decentralization, and implemented ERC721 contracts using Solidity.
- Brainstormed with the team to refine product ideas and requirements.
- Integrated ERC721 contracts with the Next.js frontend using Ethers.js, ensuring seamless interaction with the blockchain.

Backend Developer, *(MediSheets)*   **Kerala, IN** *11/2020 - 04/2021*

- Worked as a Backend Developer at Medisheets, a startup addressing supply chain issues in the pharmaceutical industry.
- Built REST endpoints according to specifications with node.js express with postgresql for database and documented them with apiDoc for clarity and accessibility.
- Collaborated in a team of 5 developers using GitLab, Jira, Slack, Zoom, etc., for project management and communication.
- Set up automated deployment processes with Docker and GitLab CI, streamlining development workflows and ensuring consistency across environments.

Application Deployment, *Freelancer*   **Kerala , IN** *05/2021 - 05/2022*

- Acquired extensive knowledge of Linux CLI and secure deployment best practices to ensure robust hosting environments.
- Provided guidance on optimizing server performance and reliability, utilizing tools like Nginx, PM2, and other relevant technologies to achieve seamless deployment and operation of applications.
- Implemented best practices for secure and scalable deployment, including setting up SSH access, configuring firewalls with UFW, implementing intrusion detection with Fail2ban, and managing SSL certificates with Certbot.
- Leveraged expertise to assist peers in deploying their applications securely and efficiently on raw Linux servers, including AWS EC2 instances and other VPS providers.

Projects

- **TCP Rust** - Implemented a basic TCP/IP stack from the ground up, focusing on the TCP three-way handshake (SYN, SYN-ACK, ACK), utilizing the tun_tap interface to create a virtual network interface. The project demonstrates a deep understanding of network protocols and low-level network programming, showcasing proficiency in systems programming and network stack development.
  Project Source Code: github.com/noormohammedb/rust-tcp-implementation/

- **Rust Blockchain from scratch UTXO POW** - Developed a proof-of-work blockchain from scratch in Rust, utilizing the UTXO model and 'clap' for CLI functionality. Implemented genesis state, coinbase transaction, and block validation. Utilized embedded 'sled' database for blockchain data storage. Designed mining process with nonce iteration for block creation.
  Project Source Code: github.com/noormohammedb/blockchain-pow-from-scratch-rust-utxo/

- **Blockchain Simulation in Rust** - Developed a simplified blockchain-like system in Rust for educational purposes. The system includes a basic runtime that manages system-level state and account balances. Implemented functionality for executing blocks of transactions, with each transaction being dispatched to the appropriate module for execution. The project served as a practical exploration of Rust's capabilities for systems programming and provided a foundational understanding of blockchain technology
  Project Source Code: github.com/noormohammedb/rust-state-machine/

ACHIEVEMENTS & CONTRIBUTIONS

- LFGrow hackathon- Second Prize - EthGlobal
  A Global web3 hackathon conducted by EthGlobal Community to build application on top of LENS PROTOCOL which is a decentralised social graph using polygon blockchain.

- Web3hacks hackathon - Second Prize - devfolio
  Won 2nd prize in a hackathon by developing "WhistleBlower-Dapp", a Web3 alternative to WikiLeaks. The DApp uses Ethereum for metadata storage, IPFS for document storage, and was built with React, Web3.js, Ganache, and Truffle Suite.

- Open Source Contribution - dnsleaktest
  Converted "go version" api calls of dnsleaktest cli tool to asynchronous method using goroutine. Github PR

Education

Diploma In Computer Engineering *Govt Polytechnic Collage Kasaragod, India*   **Kasaragod, IN** *2019-2022*
Relevant Courses: Data Structures, Algorithms, Operating Systems, Databases, Computer Networks, Software Engineering, Assembly Programming, Microprocessor and Interfacing, Computer Architecture, etc.

Hight School Computer Science *TIHSS Naimaramoola*   **Kasaragod, IN** *2015-2017*
Relevante Courses: Mathematics, Computer Science, Physics, Chemistry etc.

Skills

Programming Languages and Library
○ Rust, TypeScript, Rust-macros, Node.js JavaScript, Socket.IO , React, Golang
Technical Knowledge
○ Vim, Tmux, Git, Linux, Docker, AWS, Nginx, Systemd, SSH, Certbot, GraphQL, Gitlab CI

Languages

- **English** [Fluent]

- **Hindi** [Basic] - Learning

- **Tamil** [Basic]

- **Malayalam** [Native]