Software Developer III - Backend (ARust)

<u>In LinkedIn</u> | ☐ +91 821-762-1430 | M rustyloaki@gmail.com | ☐ GitHub

Skills _

- Rust | Python | JavaScript | TypeScript | Go | Shell Scripting | OOP | Functional Programming | Linux | Git
- MongoDB | PostgresQL | CassandraDB | Redis | Supabase | Pinecone | IPFS | Pinata
- Axum | FastApi | Actix | Rocket | Substrate | Nodejs | Express | Langchain | Transformers | React | Redux
- Docker | Docker Compose | Jenkins | CI/CD | Unit Testing | Nginx | Pm2 | Tmux | Byobu | Kubernetes
- AWS | Azure | Ec2 | CloudFront | Route53 | Lambda | ECR | Bedrock | Sage Maker | S3 | Azure OpenAl
- Distributed Systems | Microservices | REST Api | Blockchain | GRPC | Multithreading | Concurrent & Parallel Programming | Message Queuing | Kafka | RabbitMQ | Celery | Websockets
- Polkadot | Ethereum | Solana | Concordium | Polygon | EVM
- English All professional proficiency or above

Experience _

Software Developer III -**Backend**

Wowlabz

Bangalore, KA, India

12/2020 - Present

- · Hands on with Software Development Life Cycle (SDLC) process including Designing, Developing, Testing and Deployment
- Led the design and development of multiple enterprise-level blockchain, microservices & AI applications for internal (YODA Protocol, Social Li, Social Creator Economy, Movv.li, Metaport.li, Dot Marketplace, WowWiki, NFT Marketplaces, Brihaspati.ai, Believer Bot) & client projects using the latest technologies of Rust, Substrate, Rocket, Actix, Nodejs, Express, FastAPI, AWS, MongoDB, CassandraDB,
- Designed and implemented scalable APIs, RPCs and off-chain workers for managing blockchain nodes using Rust, Nodejs, AWS Ec2, and other AWS cloud technologies that serve thousands of license requests daily. Also, led the design & integration of Web3 and Web2 apps for Metaverse Worlds.
- Led the development of AI based products for internal company slack bot & client projects, custom data training, speech to text, generative models for images using OpenAI, Langchain, Mid Journey, Dall-e, Whisper, Dolly, Stable Diffusion, Adobe Fireflies.
- Managed Client RFP's and creating response proposals which included problem statement, core features, architecture diagrams, uml diagrams, effort estimation, budget estimation and risk & mitigation plans. Handled over 10 client projects.
- Developed backend apis and deployment, CI/CD for our own Social.li Metaverse Worlds.
- Responsible for conducting **Tech interviews** for Rust, Blockchain & Backend. Interviews for over 300 engineers.
- Developed and handled grant open source projects (Dot Marketplace Grant) from the Web3 Foundation.
- Mentor at Polkadot India Community, responsible for taking Rust & Substrate bootcamps, Successfully completed 3 bootcamps with a participation of over 1000 engineers. .
- Continuous Integration/Deployment Pipeline Integration, pull requests, code reviews.

Fellowship Engineer

BridgeLabz Solutions

Bangalore, KA, India

06/2020 - 12/2020

- Implemented MVC pattern for backend apps, Express, and various features like archiving, payment gateway integration in applications.
- Gained experience in AWS (EC2, S3), cloud deployment, and CI/CD with Jenkins.
- Built and managed ecommerce functionality for a Book Store Application using NodeJS, Express, Redis and MongoDB.

Payroll IT Analyst

Accenture

Bangalore, KA, India 07/2017 - 11/2019

- Oversaw payroll for 27,000+ US and Canada employees using SAP ABAP, Automation Anywhere, VBA, and Azure; managed both weekly and bi-weekly cycles.
- Conducted payroll reconciliations, issue resolutions, and maintained key reports and metrics.
- Processed year-end forms (W2 & W4) and addressed payment discrepancies.
- Engaged in weekly client meetings for process updates and continuous improvement.

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Education

Bachelor of Technology

VLSI Physical Design

New Horizon College of **Engineering**

Bangalore, KA, India 09/2012 - 12/2017

Bachelor in Electronics & Communication Engineering

Professional Courses & Training

VLSIGURU Institute

Bangalore, KA, India 11/2019 - 06/2020

· VLSI Physical Design - Backend

Projects _

• Thumsup - Believerbot Campaign on Twitter (2023): Link

- Led architecture and implementation for the believer bot campaign using large language models, messaging queues and microservices.
- Coordinated the effort to integrate sprinlkr with our backends using apis & webhooks.
- Led the development of a queues based system with 9 different services, leveraging large language models and a war room for a 3 step manual verification system.
- Llm's were used for sentiment analysis, profanity filter, language identification, RAG implementation for appropriate search for cricket facts, response generation in Hindi, English & Hinglish, payload creation for GanAI.
- Coordinated the effort to integrate with GanAl for text to voice, that uses a custom trained voice model using SRK's voice.
- Led the development of the Brihaspati.ai, a ai assisted lawyer consultation services for leading law education and lawyer firm
- Application was developed using FastAPI, Langchain, Websockets, Streams, Docker, AWS, Azure OpenAI, Pipelines.
- Solely managed the deployment & maintenance for all the services with CI/CD & testing.
- Optimized load management for all the services for the number of users.
- Worked closely with the clients to understand their requirements and deliver the product and provide live support during the world cup.

Brihaspati.ai (2023):

- Led the development of the Brihaspati.ai, a ai assisted lawyer consultation services for leading law education and lawyer firm
- Worked closely with the clients to understand their requirements and deliver the product.
- Application was developed using FastAPI, Langchain, Websockets, Streams, Docker, AWS, Azure OpenAI, Pipelines.
- Led the development for training AI with data provided to us by clients, pdf generation for legal policies, chat & chat history for conversation with AI about legal issues.
- Lawyer Consultation workflows, Razorpay payment gateway integration.
- Designed the pub-sub architecture for multi user chats and implementation.
- Solely managed the deployment & maintenance for all the services with CI/CD & testing.
- Optimized load management for all the services for the number of users.

Social.li (2022-2023):

- Social.li is an ecosystem of metaverses by providing true interoperability between worlds where users can transfer their assets from one metaverse to another without hassle. Social.li can help launch your own metaverse with its own economy. Users will get the infrastructure, tools, and interlinked community support to create a prosperous metaverse.
- Led the design and development of the features for Social.li using Rust, Substrate, Rocket, Docker, AWS, Express, Pipelines..
- Built the blockchain node with pallets for Metaworld Management, NFT Marketplace, Island Management, Metahome Dex, Governance.
- Led the feature development for Reward & Quests.
- Responsible for building RPC's for interaction with the blockchain node functions.

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- Responsible for integration of blockchain and backend services with Unity for the Metaverses.
- Led & developed backend servers for world management, user authentication, player management, node indexer for events and data.
- Solely managed the deployment & maintenance for all the services in Social.li with CI/CD & testing.
- Optimized load management for all the services for the number of users.

DubbleU Slackbot (2022-2023):

- DoubleU is an openai based personal assistant for Wowlabz integrated into Slack.
- Solely led, designed, developed & deployed the bot using Bolt, Gpt-3.5 turbo, Dalle-2, Whisper, Python, FASTApi, Langchain, Pipelies, Docker, MongoDB.
- Developed features such as Bot Persona, trained the bot on company data for queries, slash commands, access chat gpt, replies with Images based on context, Leave Notifications, Scheduler for custom messages.
- Worked closely with the HR & Finance team to curate the data for Onboarding, Tax Filing & Saving, Company Projects.
- Developed pipelines for CI/CD to host the app docker image.

Legal Lens (2023):

- Legal Lens is an openai based platform for legal related consultation & appointment services for the US.
- Developed & Deployed the platform using Python, Langchain, FASTApi RASA, FAISSdb, Pipelies.
- Led the development for training AI with data provided to us by clients, pdf generation for legal policies, chat & chat history for conversation with AI about legal issues, intent management using RASA, web scraper for legal blog data.

Metaport (2022):

- Metaport is Social.li's centralized bridge protocol for teleporting between metaverses.
- Developed & Deployed the platform using NodeJs, Express, Docker, Pipelies.
- Features to be able to travel to-fro between metaverses part of Social.li. Also, 3rd party metaverses such as Deventerland & Sandbox.
- Managed the integration of this service to all the clients for Social.li.

WowWiki (2022):

- WowWiki is a internal company Wikipedia for Code, Company Policies, Tutorials, KT, etc
- Developed & Deployed the platform using Wikijs, PostgresQL, Docker, Pipelies.
- Oauth using google as a provider.

YODA Protocol (2021):

- Involved in Whitepaper for the YODA Protocol. Project is Your Own Data Assets, a decentralized marketplace for data assets sharing, renting & selling/buying.
- Developed the smart contracts on the Ethereum Blockchain for token creation(ERC-20), sharing assets, renting assets & buying/selling assets..
- Developed the api backend for high chart dynamic data (Gantt Chart, Box Chart, Bell Curve) for all the assets in the market.
- Project was later merged with the Social.li Protocol.

Social Creator Economy (2021):

- Decentralized Platform for content creators & influencers on Polkadot using Substrate & Rust.
- Developed pallets for Social Token Creation, Creator Management.
- · Developed the backend for User Management & Integration of the clients apps to the blockchain node.
- This was developed as an MVP for Social.li to showcase the features, which is now integrated into Social.li.

Dot Marketplace (2021):

- Github Project: <u>link</u>
- Led and developed the end-to-end project, for a freelancing marketplace on web3 using polkadot & substrate.
- Developed the backend for Task Management, Authentication, File Server, Blockchain node using Rust, Rocket, MongoDB, IPFS, NFT Storage, Docker, AWS.
- Built the pallets for tasking & court (a dispute resolution mechanism).

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- Project received grants from the web3 foundation for 3 phases.
- Managed the deployment of the project for all the 3 Phases using Docker, Shell Scripts & Docker Networks. Managed Open Source contribution & pull requests.
- Optimized the service layers for authentication using message queuing and caching.

Movy.li (2022):

- Decentralized video shorts sharing platform with rewards for watching and posting videos built on Polkadot using Substrate.
- Built the File server for upload/download of videos to AWS S3 using Rust, Rocket.
- Built the Streaming Backed Service using Rocket.
- Node Indexing Service using Node Js & Polkadot Js.
- Handling the backend & blockchain integration with the frontend client.

Image Annotation (2021):

- Annotation service for Images using trained AI modes.
- Developed the project backend for AI Image Annotation an Internal service project using NodeJs, MongoDB, Express.
- Handled Integration with the Machine Learning model for annotating images.
- Developed File Server for uploading Pre & Post annotated Images on AWS S3.
- Developed that Admin Management Backend for the Application.

28nm & 32nm Processor using RISC-V Architecture (Jan 2020 – June 2020):

- Implementation of the block from RTL to GDSII
- Synthesized the RTL Verilog code to gate level netlist
- Floor planning, Macro placement, End cap cell insertion, tap cell insertion, power planning & verification, placement, post placement timing, CTS, Routing, Timing
- Global Routing Congestion fixing, Cell density, Pin Density (creating blockages)
- Post routing STA and fixing (VT Swap, Cloning, Up Sizing), Engineering Change Order, Optimization, Tape out.

Mentorship |

- <u>Polkadot India</u>: Coding Bootcamp Mentor responsible for conduction bootcamps, mentoring and giving career advice to software engineers for Rust & Blockchain (01/2021 09/2022)
 - Bootcamp Sessions: Links
- IBC Media Hackathon: Guest Speaker & Mentor at IBC Media Hackathon. Conducted workshops in Rust & Substrate. (11/2022 11/2022)
 - Workshoks: <u>Links</u>
- Huddle01: Rust Workshop for Building Decentralized Platforms (07/2022 07/2022)