

ASHWIN B

Software Engineer

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Summary

Software Engineer with 2 years of experience building production-grade Web2 and Web3 systems. Works across backend, blockchain, and frontend, with hands-on experience building APIs and backend services using Node.js and Rust (Axum), deploying and operating systems on AWS, and designing cloud-native, microservice-based architectures. Writes and deploys secure smart contracts on Ethereum (Solidity) and Sui (Move), and integrates them into real-world applications. Focused on building production-grade infrastructure around Web2 and Web3 protocols, making it suitable for both Web2 and Web3 applications.

Technical Skills

Languages & Frameworks: Node.js · TypeScript · JavaScript · NextJS · Express.js · Rust · Axum · libp2p rust
Cloud & DevOps: AWS (EC2, S3, DynamoDB) · Docker · GitHub Actions **Databases:** PostgreSQL · MongoDB · DynamoDB · MySQL · Redis
Blockchain & Web3: Solidity · Move · Ether.js · Web3.js · Smart Contracts · Walrus · Seal
Architecture: Microservices · RESTful APIs · GraphQL · Event-Driven Systems · Message Queues (RabbitMQ)
Testing: Unit Testing · Integration Testing · Load tests using Jmeter · Foundry and Hardhat for Contract auditing

Work Experience

Alkimi Exchange
Software Engineer

Bengaluru, India / UK (Hybrid)
December 2024 – January 2026

- Built and deployed Rust-based validation servers using **Axum**, designed to run inside **AWS Nitro Enclaves** for secure execution, data isolation, and confidential computing.
- Containerized enclave applications to ensure strict isolation from the parent EC2 environment, enabling secure runtime guarantees for sensitive workloads.
- Integrated smart contract execution and verification logic inside the **TEE**, enabling off-chain computation with on-chain verifiability.
- Designed backend systems to produce and consume **Kafka** streams, supporting event-driven workflows between enclave services, microservices, and blockchain interactions.
- Developed and audited cross-chain smart contracts, including:
 - Solidity (EVM) contracts for asset transfer and bridge logic.
 - Move (Sui) modules for token minting, claim flows, and hard staking with business-specific access controls.
- Contributed to end-to-end bridge infrastructure between Ethereum and Sui, enabling seamless asset transfers and governance participation.
- Set up and load-tested **Walrus** blob storage pipelines using publisher and aggregator nodes for decentralized data availability; implemented blob encryption using the **Seal** protocol, a decentralized secrets management (DSM) service for securing sensitive data at rest.
- Wrote Move modules defining access policies for encrypted data, and persisted encrypted blob metadata, access proofs, and claim state in **MongoDB** for auditability and recovery.
- Integrated the **Sui TypeScript SDK** with Node.js backend services for token migration, claim verification, and bridge coordination, on a cloud-native AWS architecture combining microservices, enclaves, message queues, and blockchain integrations.

SuiVerify
Software Engineer (Founding)

Remote
January 2026 – Present

- Leading technical development of SuiVerify's decentralized identity infrastructure, covering zkLogin/passkeys integrations, Move smart contracts, backend microservices, and CI/CD pipelines for production deployment.
- Designed and executed an end-to-end microservice architecture coordinating React frontends, Rust/Python FastAPI backends, Nautilus TEE integration, Seal encryption, and Walrus storage across the Sui ecosystem.

Heptre Techworks
Frontend Developer

Remote
September 2024 – December 2024

- Developed key modules for an ERP system, including payout integration, tool tracking, and inventory management.
- Collaborated closely with backend teams to integrate APIs and ensure smooth data handling across pages using dynamic table views and form interactions.

Key Projects

ReBTC — *Bitcoin-backed stablecoin protocol on the Core blockchain with AI-powered price automation and cross-chain collateralization.*

- Implemented Solidity smart contracts for minting, collateral management, and liquidation logic; integrated them with frontend services for user interaction and on-chain actions, backed by RESTful services for protocol operations and data flow.

Cultura — *AI-powered meme licensing platform that registers viral content as IP for autonomous monetization via Story Protocol.*

- Integrated ML models for prompt-based meme generation, implemented IP registration and licensing flows on Story Protocol, and leveraged Story L1 to handle royalty distribution and ownership enforcement autonomously.

SuiVerify — *Decentralized identity and verification infrastructure on Sui using TEE-backed off-chain computation and on-chain attestations.*

- Led technical development from hackathon prototype to an in-progress mainnet-ready system; owned end-to-end architecture across frontend apps, Rust/Python microservices, and Move smart contracts, scaling toward mainnet with support from a Sui Foundation grant.

Open Source Contributions

Nautilus-Ops — *Self-managed TEE orchestrator CLI for AWS Nitro Enclaves on Sui; officially listed in the Sui community developer tools documentation.*

- Handles building enclave images, deploying to EC2, registering attestations on-chain, and verifying enclave signatures. Supports multiple template types: Rust (nautilus-enclave), TypeScript (Bun + argonaut), Python (pynacl), Messaging Relay, and MemWal Relay (hybrid Rust + TypeScript with BCS-signed responses, pgvector embeddings, Walrus blob storage, Upstash Redis rate limiting, and SEAL decryption).

MemWal (Walrus Memory) — *MystenLabs — Portable agent memory layer built on Walrus decentralized storage.*

- Contributor to the MystenLabs project enabling AI agents to operate reliably across apps and sessions with verifiable, user-controlled context. Supports single-file integration and LLM-friendly docs; currently in beta under active development within the Sui ecosystem.

Achievements

- Full Stack Web3 Developer, Core Hacker House India — **Winner (2025)**
- Full Stack Web3 Developer, Safe Agentathon — **Best-in-Class Track Winner (2025)**
- Full Stack Web3 Developer, EthGlobal NewDelhi — **Walrus Track Winner (2025)**
- Full Stack Web3 Developer, Walrus Hackout — **Winner (2025)**

Education

SJCIT, Bengaluru
Bachelor of Technology in Computer Science and Engineering

2022 – 2026