

Rakibul Islam

Senior Software Engineer | Distributed Systems, AI & Platform Engineering

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SUMMARY

Senior software engineer with 6+ years leading the architecture, development, deployment, and operation of distributed, AI-powered, and fintech platforms. Experienced in translating product requirements into secure and scalable systems, defining service and data boundaries, designing asynchronous processing, establishing CI/CD and observability practices, and guiding engineers through complex technical decisions. Combines hands-on TypeScript and Node.js development with end-to-end ownership of system reliability, performance, delivery, and production operations.

TECHNICAL SKILLS

Languages	TypeScript, JavaScript (ES6+), Python, SQL, PHP, Solidity
Software Engineering	Node.js, Express, NestJS, REST, GraphQL, gRPC, WebSockets, Server-Sent Events, automated testing, code review and engineering standards
Architecture & Systems	Distributed and event-driven systems, microservices, background workers, transactional outbox, multi-tenant isolation, source-of-truth boundaries, API and domain modeling
Data & Messaging	PostgreSQL (pgvector, row-level security), MongoDB, MySQL, Redis, BullMQ, schema migrations
AI Engineering	Retrieval-augmented generation, AI agents (LangChain, LangGraph), structured-output validation, evaluation harnesses, provider gateways, OpenAI API
Deployment & Operations	Docker, Kubernetes, AWS (S3, Textract), DigitalOcean, Cloudflare Workers & D1, Jenkins, GitHub Actions, CI/CD, Nginx, PM2, OpenTelemetry
Fintech & Blockchain	Stripe, idempotent payment flows, automated reconciliation, Ethereum, Polygon, Base, Solana, Ethers.js, Viem, ERC-20/721/1155/4337

EXPERIENCE

Bayshore Communication

Feb 2022 – Present

Senior Software Engineer

Dhaka, Bangladesh

RFPilot AI — Governed AI intelligence layer for enterprise RFP and proposal management

- Led backend development for a three-service TypeScript platform spanning 37 API modules and a durable worker tier, owning architecture, engineering standards, deployment readiness, and production reliability.
- Defined the data architecture and source-of-truth boundaries, separating proposal authority in MongoDB from the AI domain in PostgreSQL with pgvector, and enforcing per-tenant isolation through row-level security.
- Designed a transactional outbox and durable worker pipeline that moved AI extraction, drafting, and indexing off the request path, passing references rather than document content through the queue.
- Established evaluation and structured-output discipline for the retrieval pipeline, reaching 93.3% precision and 87.5% recall at 100% citation and schema conformance.
- Built a deterministic pricing engine that reproduces reference quotes within 0.56% and refuses unsupported categories, preventing unverified figures from reaching client-facing proposals.
- Introduced release and safety controls across the AI surface: deny-by-default feature flags, per-capability kill switches, upload malware scanning, OpenTelemetry tracing, and contract-first CI gating every merge on lint, type, migration, and test checks.

Swop — Multi-chain self-custody wallet with social trading and stablecoin payments

- Designed and operated the backend of a multi-chain wallet serving thousands of concurrent users at more than 99.9% uptime, spanning API, wallet-indexing, real-time communication, and order-processing services.
- Set service architecture and code review standards across the backend, mentoring engineers on queue design, on-chain transaction safety, and API contracts.
- Engineered a Redis-backed distributed job queue on Bull and BullMQ for wallet indexing, order fulfillment, and background processing, decoupling heavy workloads from the request cycle to allow horizontal scaling.
- Built a Socket.IO real-time layer streaming order status, chat, agent responses, and on-chain transaction confirmations to concurrent clients.
- Architected a LangChain and LangGraph conversational agent that translates natural language into on-chain transactions behind a confirmation gate, with deterministic fast-paths that bypass the model on common queries to reduce inference cost.
- Implemented secure payment and transaction workflows across Stripe and cryptocurrency rails, with webhook verification, idempotent processing, and automated reconciliation.
- Improved production performance and release velocity: 40% faster API responses under peak load through Nginx and Redis caching, 70% shorter deployment lead time via a Jenkins pipeline, and 80% faster environment setup with multi-stage Docker builds.

Picredo Software Ltd.

Feb 2020 – Jan 2022

Software Developer

Dhaka, Bangladesh

Pharmaceutical and multi-vendor e-commerce product engineering

- Developed and launched epharma.com.bd, a full-stack pharmaceutical e-commerce platform on Laravel, MySQL, and React serving thousands of daily active users.
- Built a multi-vendor order management system with real-time inventory tracking, prescription upload workflows, and automated Twilio and SendGrid notifications.
- Integrated the SSLCommerz payment gateway with automated reconciliation reporting, reducing manual billing effort 60%.
- Optimized MySQL through indexing and query caching, cutting average page load time 35% on high-traffic catalog pages.

EDUCATION & PROFESSIONAL TRAINING

University of Asia Pacific

2016 – 2020

B.Sc. in Computer Science & Engineering

Dhaka, Bangladesh

CGPA 3.49 / 4.00

Ethereum Developer Bootcamp — Alchemy University | Solana Developer Program — Solana Foundation