Aashna Naushad

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Summary

Software Engineer with 5+ years of experience architecting and delivering fintech platforms including digital wallets, payment collection, crypto exchanges, and payout infrastructure. Proven ability to lead small engineering teams while staying hands-on with system design, high-throughput data pipelines, and microservices. Strong foundation in Java, Kotlin, and the Spring ecosystem with a consistent track record of shipping scalable, production-grade systems.

Experience

Senior Software Engineer July 2021 – Present
Hatio Innovations Private Limited *Kochi, Kerala*

Joined as SDE 1 (Jul 2021) → Promoted to SDE 2 (Oct 2023) → Promoted to Senior Software Engineer (Oct 2026)

Smart Collect

- Led a 4-member team in building a white-labeled B2B payment collection platform, enabling businesses to collect payments, track dues, manage customer ledgers, and automate payment reminders.
- Architected two reusable backend service libraries (a double-entry accounting engine and an RBAC module) integrated across multiple products with **zero consumer code changes**.
- Integrated 4 payment gateways (Razorpay, Stripe, PayPal, BillDesk) with full autopay and mandate lifecycle support including split debits, pre-debit notifications, and retry capping.
- Eliminated N+1 query pattern on the invoice list, reducing database round-trips by **~93% (91 → 6 queries per page load)**.

Digital Wallet

- Led a 3-member engineering team to architect and deliver a fully functional end-to-end closed-loop digital wallet platform within **4 weeks**, including mock merchant application integration.
- Owned end-to-end technical solutioning across the full platform stack, from wallet transaction management and ledger design to merchant reconciliation, settlement workflows, and payment gateway integration.
- Built and published an embeddable **React wallet SDK** for third-party merchant integrations, covering deposit, spend, and transaction history flows.
- Implemented idempotent spend order creation and a status-check fallback API to recover transactions missed by payment gateway webhooks.

Escrow System

- Architected a configurable double-entry bookkeeping engine for escrow transaction tracking, pluggable into any application with **zero code changes**, with support for daily and quarterly report generation.
- Boosted data processing speed from **10k/min to 450k/min** using Spring Batch, reliably handling a platform processing **1M+ transactions daily**.
- Reduced trial balance report generation from **3h 25m to under 4 minutes (64x faster)** on datasets of 1 crore+ ledger entries, via parallel refresh threads and query optimisation.
- Built an event-driven batch ingestion pipeline using the outbox pattern, processing PG, BMS and NPCI settlement events across multiple transaction types.
- Delivered an **RBI compliance** reporting pipeline covering daily outstanding liabilities, core account balances and business metrics.
- Built the React user portal covering bank statement management, master onboarding, business metrics and audit report flows.

Coinome Cryptocurrency Exchange

- Improved REST API data retrieval time by **80%** via archive optimization and using Cassandra as a secondary database.
- Built the OHLCV and ticker module using Kafka listeners to stream real-time market data into Cassandra at configurable intervals.
- Implemented user authentication via AWS Cognito, KYC integration with Hyperverge, and session management using ElastiCache.

Hatio Payouts Platform

- Led transition of monolithic project to microservices architecture, enhancing scalability and maintainability.

- Implemented data encryption for bank integrations and integrated HashiCorp Vault for secure secret management.
- Leveraged gRPC for efficient inter-service communication and managed end-to-end CI/CD pipelines, achieving a **20% reduction in release cycles**.
- Integrated ELK stack (Elasticsearch, Logstash, Kibana) for log monitoring, improving system observability and troubleshooting efficiency.

Software Engineer Intern April 2020 – July 2020
Open Healthcare Network *Remote*

- Contributed to an open-source digital health platform built for the Indian public health system.
- Developed a scalable solution to facilitate quarantine stay booking for district administration.
- Designed and implemented an Inventory Management System adopted by multiple districts for tracking oxygen availability.

Achievements

- Recognized as top performer in 8 out of 10 bi-annual performance reviews at Hatio Innovations.
- Won Reboot Kerala Hackathon for Trade'NSure, a system to monitor the quality of perishable food items transported across states.

Education

Bachelor of Technology in Computer Science and Engineering (CGPA: 9.29) 2017 – 2021
Muthoot Institute of Technology and Science *Kochi, Kerala*
Affiliated to A.P.J. Abdul Kalam Technological University

Technical Skills

Languages : Java, Kotlin, TypeScript
Frameworks : Spring Boot, Spring Batch, Kafka, gRPC, React
Databases : Oracle SQL, PostgreSQL, MySQL, Cassandra, Redis
Tools & DevOps : Git, Docker, HashiCorp Vault, Debezium, Helm Charts, Rancher, Swagger