

Rifat Bin Siraj

Senior Full Stack Engineer · AI Platform Builder · 5+ Years Experience

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PROFESSIONAL SUMMARY

Full Stack Software Engineer with 5+ years of experience building and scaling production-grade web apps, cloud-native serverless systems, and AI-powered platforms. Strong across the stack — React.js front-ends, Node.js / NestJS / Express.js and Java / Spring Boot back-ends, GraphQL, PostgreSQL / MongoDB, and AWS. Founder and lead engineer of DrutoAI, which runs seven live products, including a pay-as-you-go AI chat platform and an LLM agent office. Proven impact: 50% faster APIs, 60% fewer production bugs, and 95% test coverage.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, SQL, Bash / Shell Scripting, Dart

Frontend: React.js, Vite, Material UI, Tailwind CSS, Redux Toolkit, Apollo Client, Flutter, HTML5, CSS3, REST & GraphQL

Backend: Node.js, NestJS, Express.js, Fastify, Java, Spring Boot, RESTful APIs, GraphQL, Microservices, Serverless, JWT & Cognito Auth, OAuth2, E-commerce Platform APIs (Shopify, WooCommerce, PrestaShop, SFCC)

Databases: PostgreSQL, MongoDB, MySQL, DynamoDB, Redis, Elasticsearch, Prisma, TypeORM, Flyway, Query Optimization

Cloud & AWS: Lambda, EC2, S3, API Gateway, Cognito, SNS, SES, DynamoDB, KMS, Secrets Manager, CloudWatch, Serverless Framework, Vercel

DevOps: CI/CD, GitHub Actions, GitLab CI, Docker, Docker Compose, Nginx, Apache Kafka, BullMQ, Socket.IO, Firebase, Git, Linux / Unix

AI & LLM: Anthropic Claude, OpenAI GPT, Google Gemini, OpenRouter, Vercel AI SDK, MCP, RAG, Model Routing, Semantic Caching, Evals, Real-Time Streaming, Usage Metering & Billing

Testing: Jest, JUnit, Mockito, Mocha, Playwright, TDD, Capacitor, Payment Gateways (bKash, SurjoPay, Stripe), Agile / Scrum

PROFESSIONAL EXPERIENCE

Software Engineer — Digital Bridge | Aug 2026 – Present

- Deliver features spanning 5+ independently deployed services — React front-end, GraphQL API and resolvers, transportation and refund — on an AWS Lambda returns platform of 80+ microservice repos.
- Integrated a pricing rules engine into operator return pricing with action-scoped evaluation, and added bounded, role-gated price overrides plus a persisted return-fee decision honoured by the refund service.
- Root-caused a silent production bug across 5 e-commerce integrations (Shopify, WooCommerce, PrestaShop, SFCC) — 6 fixes.
- Built a Playwright + TypeScript API/UI end-to-end suite and authored design docs to GitLab and Confluence.
- Run multi-repo release batches (dry-run merges, conflict resolution, per-service MRs) and triage incidents in CloudWatch.

Full Stack Engineer — Sense & Respond Software LLC | Nov 2022 – Jul 2026 · 3.7 yrs

- Architected and delivered 8+ production full-stack applications (React.js, NestJS, Express.js, MongoDB / PostgreSQL) serving 50,000+ active users.
- Designed RESTful and GraphQL APIs that cut average response latency by 40% via query optimization, indexing, and Redis caching.
- Built and maintained AWS serverless infrastructure (Lambda, API Gateway, S3, Cognito, SNS, DynamoDB, KMS), reducing cloud costs by 20%.

- Established CI/CD pipelines with automated Jest gates and GitHub Actions, reducing production bugs by 60% and enabling daily deployments.
- Led architecture decisions and mentored 3 junior engineers through code reviews, sprint planning, and pair programming.

Software Engineer — Ghuddy Limited | Jul 2021 – Nov 2022 · 1.4 yrs

- Built backend microservices and REST APIs for a high-traffic travel & hotel-booking platform using Java and Spring Boot on PostgreSQL with Flyway migrations.
- Implemented Elasticsearch-powered search and filtering for fast hotel, tour, and listing discovery across large datasets.
- Integrated AWS S3, SurjoPay payments, Firebase notifications, Apache Kafka events, and Spring Mail transactional emails.
- Cut average API response time 50% via JPA query tuning and PostgreSQL indexing; 95% test coverage with JUnit & Mockito.

FEATURED PROJECTS — DRUTOAI

Founder & Lead Engineer · 2026 – Present

DrutoAI Chat Platform — drutoai.com | 2026 – Present · live

- Pay-per-chat AI platform for Bangladesh with pluggable LLM providers (Claude, OpenAI, OpenRouter), real-time streaming, Bangla support, usage metering and credit billing; bKash payments; native iOS & Android apps via Capacitor.
- NestJS + MongoDB backend (JWT, Swagger) with a React + Vite + TypeScript + Tailwind front-end.

LLM Autopilot — AI Agent Office & LLMops Gateway — agent.drutoai.com | 2026 – Present · live

- Office of AI agents: a manager agent splits a goal into tasks, assigns them and reviews the results, shown live over Socket.IO; tickets sync from Jira, GitHub, GitLab, Linear, Asana & ClickUp; 50+ integrations.
- Gateway routes each request to the cheapest capable model, with a semantic cache, fallback chains, a trace for every step and a cost for every request.
- NestJS 11 / Fastify, MongoDB, Redis, React + TypeScript + Tailwind, AWS S3, MCP; Docker images built in GitHub Actions and rolled out to EC2 behind health checks.

ShopDesk — Multi-Tenant AI Sales Assistant for Online Stores — bot.drutoai.com | Jul 2026 – Present · live

- Answers customers on Messenger, WhatsApp, Instagram & web chat in Bangla or English and takes orders in conversation.
- NestJS 11 / Fastify, MongoDB, Redis + BullMQ and a React + Vite SPA on Docker Compose; multi-provider tool calling with RAG.
- Exactly-once messaging via job-id dedupe, per-conversation locks and CAS claims; 61k lines under 184 test specs.

Druto Trade — AI-Assisted Crypto Trading Bot — trade.drutoai.com | Oct 2026 – Present · live

- Screens a Binance spot watchlist on RSI, MACD, moving averages and Bollinger bands, and asks Claude, GPT or Gemini only about notable setups, as schema-checked structured output; every decision is logged with its reasoning.
- Code, not the AI, sizes orders inside a hard budget, stop-loss, take-profit and position limits; paper, testnet and live behind one exchange interface, live locked by a server switch and a typed confirmation.
- Single-flight scheduler with resume on boot and a kill switch, equity curves, WhatsApp alerts. NestJS 11 / Fastify, MongoDB, ccxt, React + Lightweight Charts; 130+ tests; four design records.
- **AI Call Center** (callcenter.drutoai.com, live) — voice AI agents that answer, qualify and book calls, with KYC, usage metering and ShurjoPay billing; NestJS, React, Vapi.
- **EduAI** (learn.drutoai.com, live) — AI learning platform with a Claude tutor, cached search and token-based billing in Bangla and English; NestJS, React.
- **DrutoPay** (pay.drutoai.com, live) — bKash, Nagad & Rocket payment verification from SMS captured by an Android app, with a commission wallet and merchant webhooks; NestJS, Android.

- **ShopVerse** (shop.drutoai.com, live) — full-stack e-commerce store with admin panel; NestJS, React, AWS S3.

BANGLADESH FINTECH SUITE

built issue by issue with pull requests, CI and design records · 2026 – Present

Joma-Khoroch — SME Bookkeeping from SMS — jomakhoroch.drutoai.com | preview

- Turns a small business's bKash, Nagad and Rocket SMS into an append-only double-entry ledger: own transfers paired, rules then optional AI to categorise, month close, P&L and cash flow, read-only accountant role.
- Synthetic benchmark: 1,061 of 1,061 wallet SMS recorded exactly, 14 of 14 transfers paired. NestJS 11 / Fastify, MongoDB, React + RTK Query; বাংলা / English; 290+ tests; five design records.

Bitoron — MFS Payout Verification — bitoron.drutoai.com | preview

- Confirms every bKash, Nagad and Rocket payout to riders, customers or sellers from the sending phone's own SMS, matched to its batch line by number and exact amount, after maker-checker approval with limits.
- Re-runnable stored matching, an audited and reversible exceptions queue, and a balance trail that finds SMS that never arrived; signed webhooks, an event feed and a batch API.
- Synthetic benchmark: 100% confirmation precision and recall. NestJS 11 / Fastify, MongoDB, React + RTK Query; বাংলা / English; 260+ tests; five design records.

Kisti — Recurring MFS Billing — kisti.drutoai.com | preview

- Bills students, members and customers of schools, coaching centres, ISPs and gyms every month, quarter or year on Dhaka dates, with prorated months, discounts and one-time fees; a unique index per subscription and period means re-runs and parallel servers never double-bill.
- Matches bKash and Nagad payments from the organisation's own SMS by a payer code typed in the Reference, then by payer number and amount; anything unclear waits in a review queue where staff assign, split or undo.
- Append-only ledger with oldest-first allocation, waivers, credits and reversals; numbered cash receipts, printable statements and a private payer link showing what is due and how to pay.
- SMS reminders within a monthly budget and quiet hours, late fees and dunning stages up to suspension, and signed webhooks with retries so an ISP or gym system restores service the moment a payment lands.
- Synthetic matching benchmark through the real parser: 98.5% precision; its first run found a bKash parsing bug, fixed upstream in the shared MFS library.
- NestJS 11 / Fastify, MongoDB, React + Vite + RTK Query + Tailwind; বাংলা / English; 260+ tests; five design records.

Payment Shield — Payment-Claim Verification — paymentshield.drutoai.com | preview

- Checks every bKash, Nagad or Rocket payment a customer claims against the money-received SMS on the shop's own phone: verified, wrong amount, TrxID reused or not received; re-checks as SMS arrive.
- Reads payment screenshots with OCR (English & Bangla), flags edited amounts and reused images; a rule-based risk score with reasons decides ship, hold or reject.
- Opt-in fraud network sharing only HMAC hashes between shops; hold queue and signed webhooks. NestJS 11 / Fastify, MongoDB, React + RTK Query; বাংলা / English; 210+ tests; synthetic fraud benchmark.

COD Reconcile — Cash-on-Delivery Reconciliation — cod.drutoai.com | preview

- Matches courier payout statements (Steadfast, Pathao, RedX or any CSV) to every order against a dated rate card; flags short payments, wrong fees, wrongly charged returns and payouts that never reached the bank.
- Dispute queue, claim files for couriers and an outstanding-COD dashboard; engine scored on synthetic replays; 193 tests.

Baki-Khata — Shop Credit Ledger — bakikhata.drutoai.com | preview

- Credit ledger for small shops whose dues settle automatically, oldest first, from bKash, Nagad & Rocket SMS; review queue for unknown numbers, SMS reminders, shareable statements and ageing reports.
- Append-only ledger, duplicate-safe on transaction IDs; 77 tests.
- **bd-mfs-core** — shared TypeScript library behind the suite: SMS parsers for 11 Bangladeshi mobile-money providers, phone and Taka handling, payment matching, signed webhooks, commission math and an Android SMS

forwarder; 119 tests.

OTHER PRODUCTS IN DEVELOPMENT

- **Restaurant SaaS** (restaurant.drutoai.com, preview) — multi-tenant restaurant ordering (delivery, pickup, QR dine-in) on each restaurant's own storefront, Stripe Connect payouts; NestJS, React.
- **Job App Tracker** (jobs.drutoai.com, preview) — Gmail sync with one Google sign-in, emails classified by the user's own AI provider key, a Kanban board of every stage; NestJS, React.
- **Deploy Hub** (deployhub.drutoai.com, preview) — self-hosted deploys over SSH to pm2 or Docker; NestJS, React.
- **Healthcare App** — Flutter mobile app with a Node.js proxy to Gemini AI, auth and audit logging.
- **Five Flutter apps for Bangladesh** — tutor finder, freelancer match, medicine reminder, neighbourhood shop and transport tracker, built from one shared starter (auth, theming, Bangla / English).

CLIENT & EMPLOYER PROJECTS

- **QA Studio** — AI API testing & QA automation (Claude, OpenAI, Gemini via Vercel AI SDK + MCP); NestJS, BullMQ, React.
- **ATA** — API governance & docs platform with a Spectral OpenAPI linting CLI; NestJS, Redis, React micro-frontends.
- **Sniffer** — defect tracking & QA collaboration; NestJS microservices, Anthropic AI, AWS SQS / KMS / SES, Docker.
- **D2C Campaigns & Associate 360** — campaign platform and HR, payroll & finance suite on serverless AWS Lambda.
- **Ghuddy travel & hotel booking** (ghuddy.com) — Spring Boot, PostgreSQL, Elasticsearch, Kafka, SurjoPay.
- **H. Properties** (freelance) — bilingual Bangla / English website for a Rajshahi builder, with an admin panel.

OPEN SOURCE & OTHER BUILDS

npm: api-collection-converter (Postman, OpenAPI, Insomnia, HAR, cURL, RAML, GraphQL, WSDL), files-to-markdown, crashrelay, crashrelay-browser, and the vuln-, secrets-, postinstall-, license- and actions-guardian CI security tools. **Public repos:** Chatbot Platform, ShopFlow (Stripe & bKash payments), Secure Notes API.

KEY ACHIEVEMENTS

50% Faster APIs: Halved average response time via query optimization, caching and endpoint refactoring.

95% Test Coverage: Jest, JUnit and Mockito suites in CI/CD; no production regressions for 18+ consecutive months.

60% Fewer Bugs: Automated testing gates and code-review standards cut defects reaching production.

5 Products / 12 Months: Led a cross-functional team to ship five full-stack products on time and to spec.

EDUCATION & PUBLICATION

B.Sc. in Computer Science & Engineering | 2016 – 2021

Rajshahi University of Engineering & Technology (RUET)

Clustering-Based Undersampling Using K-Means for Class-Imbalanced Data Accepted | Nov 2026

R. B. Siraj, E. K. Hashi — IEEE CSDE 2026 (11th Asia-Pacific Conference on Computer Science and Data Engineering), Cox's Bazar. From my undergraduate thesis.