

RIFAT HOSSAIN

Software Engineer · +880 1312 994785 · smrifat1411@gmail.com · [Portfolio](#) · [GitHub](#) · [LinkedIn](#)

Full-stack engineer, 4+ years, 20+ products shipped end to end — from idea to production, then owned and kept running. The interface people use, the AI features behind it, and the infrastructure under both. Also the software behind physical devices: RFID attendance terminals, ESP32 exam-hall displays, pharmaceutical calibration machines, offline-first POS.

Contracting remotely for a Czech company — overlaps European and US-Eastern hours.

EXPERIENCE

Software Engineer · Contract — WebBoxes Brno, Czech Republic (remote) · Feb 2025 – Present

- Scope requirements directly with clients, then build and run [All0e](#) and GoodStanding in production end to end
- Run the full DevOps pipeline: Docker across staging/production, GitHub Actions CI gates, AWS deploys, Nginx, Sentry monitoring

Founding Software Engineer — XpeedLab Dhaka, Bangladesh · Apr 2023 – Jul 2024

- Built the Eventspark MVP from concept to launch, scaling to **100K+ users in 2 months**
- Shipped products end to end: event platform, POS, pharma calibration tool, newsroom dashboard
- Led delivery across the team — architecture, code review, CI/CD — and scoped each product with clients

Web Developer — WebBoxes Brno, Czech Republic (remote) · May 2022 – Dec 2022

- Delivered client projects across React, Next.js, Express and Strapi; scaled APIs onto NestJS and GraphQL

Software Engineer Intern — Nextive Solution Dhaka, Bangladesh · Jan 2022 – Apr 2022

- Rebuilt the UI of Poridhi.io, a Bengali software-education platform, in React, TypeScript and Tailwind

OPEN SOURCE

- **wordpaste** — built and maintain. Zero-dependency library that keeps Word equations editable as LaTeX and rebuilds its fake lists as real ones. **Listed in Tiptap's official community extensions** · [npm](#) · [demo](#) · [write-up](#)
- **facebook/lexical** — merged a Word-list paste feature into **Meta's editor framework (23k★)**, reviewed by a core maintainer; shipped **net -94 lines** by deleting two hand-rolled copies of the same overlay · [PR #9082](#)
- **ueberdosis/tiptap** — merged a fix to the image extension of a 38k★ editor framework · [PR #8188](#)

PROJECTS

RMJC LMS — own product, bilingual exam platform in production [Live](#)

- Built both services: LaTeX question bank, proctored attempts, Stripe enrollment, grading, AI assistant
- Rebuilt auth: RS256 with JWKS, refresh-token rotation with reuse detection, TOTP MFA, Redis Lua rate limiter
- Hardened across **261 days in production** — **10 JOINS** cut from the hot query, authorization audited end to end
- Multi-tenant architecture: one deployment serving multiple institutions

All0e — peer-to-peer WebRTC video conferencing [Live](#)

- Real-time encrypted video for up to 100 participants; custom Socket.IO signaling, NestJS backend

GoodStanding — community volunteering SaaS [Live](#)

- Postgres row-level security throughout: volunteer matching, approval workflows, coupon marketplace

Agentic AI services — rules first, model second TypeScript · Python

- Deterministic decision, schema-validated output; QueueStorm reasons over supplied evidence, not model recall

Campus device backend — SUST Django REST · private repo

- Device API for RFID attendance terminals and ESP32 displays; buffers offline, reconciles duplicate reads into attendance

Renata Gazepack — pharmaceutical calibration tooling Delivered · client work

- Paired web and Electron desktop apps calibrating packaging machines on a pharmaceutical factory floor

Also built: Tirnoi (blood donation platform) · [Xpeed POS](#) (offline-first Electron) · MU UMS (university system) · [NovaDomus](#), [Exclusive Holdings](#) · [GitHub](#)

SKILLS

- Languages:** TypeScript, JavaScript, Python, SQL
- Frameworks:** React, Next.js, Node.js, NestJS, Django REST, REST APIs, GraphQL, Electron.js, WebRTC, Socket.IO
- Data:** PostgreSQL, Supabase, MongoDB, Redis, Prisma, SQL schema design
- Infrastructure:** Docker, GitHub Actions CI/CD, AWS, Nginx, Coolify, Sentry monitoring, learning Kubernetes
- Testing:** Playwright end to end, Vitest, Jest, supertest, pgTAP at the database
- Security:** RBAC and multi-tenant authorization, Postgres row-level security, MFA, RS256/JWKS
- AI:** Provider-agnostic LLM architecture — one port, four adapters, failover mid-stream, schema-validated output

EDUCATION & VOLUNTEERING

BSc in Electronics and Communication Engineering — Institute of Science and Technology, Dhaka 2019 – 2024

Scratch Programming Mentor — Bangladesh Open Source Network (BdOSN) Apr 2022 – Present