Rakibur Rahman Rakib

Backend Engineer • Computer Science & Engineering Major

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SUMMARY

Curious Backend Engineer who loves exploring technologies from their core to deeply understand how they work, and enjoys sharing those learnings with others.

Technical Skills

Programming:	Javascript, TypeScript, Python, C/C++, SQL
Backend & Frameworks:	Node.js, Express.js, Bun, Hono
Databases:	PostgreSQL, MongoDB, Redis
Message Brokers / Queues:	RabbitMQ
ORM/ODM	Mongoose, Prisma
Testing	Unit & Integration Testing (vitest), TDD-style Development
Containerization & DevOps:	Docker, GitHub Actions (CI/CD)
API & Observability:	Swagger (OpenAPI), Prometheus, Grafana,Loki
Web / Frontend:	React, Next.js, HTML/CSS
Tools:	Git, Postman/Insomnia, Vercel, VS Code
Other:	Prompt engineering, system design basics

Professional Experience

Backend Engineer | Systemica Institut (Germany) | Remote ⧉   11/2024 – 05/2025
                                                                                                Remote
- Initiated a complete test environment setup for the monorepo-based codebase (including Git submodules) and wrote ~80% of the unit and integration tests across critical modules.
- Followed a TDD-style workflow using Vitest, writing unit and integration tests alongside feature development to ensure stability and maintainability.
- Designed a reusable Mongoose plugin for data retention policies, reducing repetitive code by 60% and improving modularity across multiple services.
- Contributed to company-wide codebase refactoring to align with industry standards and conventions. Personally handled ~30% of the refactoring effort, including core components such as QR code, TOTP, email, and file upload processors, and resolved issues in several foundational API endpoints.
- Automated monorepo setup via a custom CLI tool (Inquirer.js), streamlining environment setup and dependency installation across shared packages.
- Developed high-impact modules, including a coupon/referral/discount for a payment platform and a patient therapy survey tool used by doctors.

Projects

Monkhule (Anonymous Bangla Storytelling Platform) ⧉   05/2025 – 07/2025
- Led the project from brainstorming to production, designing the backend architecture, database schema, and deployment strategy for a Bangla storytelling platform enabling anonymous posts, voting, and reporting.
- Built secure RESTful APIs with Node.js, Express.js, and MongoDB, implementing role-based admin control, multi-stage data-retention policy, rate limiting, and IP-based tracking to ensure moderation and abuse prevention.
- Integrated an Admin Panel API with approval workflows and deletion pipelines, and collaborated with two frontend developers to deliver production deployment and CI/CD automation.

NICU (Neonatal Intensive Care Unit) Management System – Freelance Based Project   present
- Developed a secure, multi-role backend (doctor, nurse, admin, receptionist, patient) enabling patient admission workflows, department/bed management, and automated discharge paper generation based on medical history.
- Planning to extend the system with a treatment automation module that recommends medicines and procedures using each patient's historical data and condition profile.

HONORS & AWARDS

Regional Champion, Global Nominee ⧉   06/10/2023
NASA Space App Challenge 2023

Second Runner-Up ↗   11/2025
CUET API Avengers Microservice Hackathon

Top 10 Finalists Team ↗   04/2024
IUT National ICT Fest 2024 OpenAPI Hackathon

Top 10 Finalist Team   12/2024
IUBAT Techno Craft V2 Hackathon

Education

BSC,Computer Science and Engineering, *Daffodil International University* ↗   06/2022 – 06/2026
                                                                    Dhaka, Bangladesh