

SARBOJIT RANA

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Education

National Institute of Technology, Agartala

2023 – 2027

B.Tech in Electronics and Communication Engineering

CGPA: 8.03/10.0 (As of 6th Semester)

Surendranath Centenary School, Ranchi

2021 – 2022

Senior Secondary (Class XII)

Percentage: 91.6%

Surendranath Centenary School, Ranchi

2019 – 2020

Secondary (Class X)

Percentage: 95.2%

Experience

National Informatics Centre – Software Engineering Intern (Backend)

May 2026 – July 2026

- Worked with a team of 12 developers to gather requirements, iterate on feedback, and develop a configurable JSON parser service in Go for processing workflow event payloads using PostgreSQL.
- Designed a configurable parsing pipeline supporting 10+ workflow fields through a spreadsheet-driven mapping engine, normalized PostgreSQL schemas, repository abstractions, and optimized JSONB storage without code changes for new services.
- Tech Stack:** Go, Echo, PostgreSQL, Tern

Open Source Contributor

- Worked with open-source maintainers to refine solutions through review feedback, resulting in merged bug fixes and performance improvements across multiple repositories.
- Merged pull requests: [Hiero Ledger \(PR #4180\)](#), [yay \(PR #2705\)](#), [Heiro Ledger \(PR #5396\)](#), [gemini-cli \(PR #28607\)](#).

Projects

Nexus — Social Media Platform | [Live Link](#)



- Built a full-stack community platform with **Clerk** auth, resource-scoped **RBAC**, cursor pagination, Redis cache-aside, rate limiting and presigned direct-to-bucket uploads, following the **Repository Pattern** across strict repository → service → handler layering.
- Designed 60+ REST endpoints over 16 PostgreSQL tables with 9 services and 11 middleware layers, enforcing end-to-end type safety via **Zod** → **ts-rest** contracts shared between the Go API and Next.js client in a **Turborepo** monorepo.
- Engineered real-time **WebSocket** chat with presence and read receipts, **OpenSearch** full-text search with automatic **PostgreSQL** fallback, and production observability via **Zerolog**, **New Relic** and **Asynq** workers driving transactional email.
- Tech Stack:** Go, Echo, PostgreSQL, Redis, OpenSearch, WebSockets, Next.js, React, TypeScript, Clerk, S3/R2, Zod, ts-rest, Turborepo, Zerolog, New Relic, Asynq, Tern

CodeMetrics — Competitive Programming Stats Dashboard | [Live Link](#)



- Implemented **JWT** auth with **Google OAuth**, bcrypt hashing, and token-based password reset, following the **Repository Pattern** across repository → service → handler layers over a normalized **PostgreSQL** schema.
- Built a rate-limited Codeforces API client with **PostgreSQL**-backed caching to aggregate acceptance rate, problems solved, and rating history, powering a multi-leaderboard comparison dashboard across 15+ REST endpoints in **Echo**.
- Enforced stricter per-IP rate limiting on auth routes against credential stuffing, and added transactional email via **Gmail SMTP** for password resets and security alerts.
- Tech Stack:** Go, Echo, PostgreSQL, JWT, OAuth, React.js, Recharts, Rate Limiting, Gmail SMTP

Achievements

- Codeforces: **Specialist** rating (1427) with over 700 competitive programming problems solved. [sarbojit_007](#)
- LeetCode: **Knight** rating (1950+) more than 600 data structures and algorithm questions solved. [sarbojit_007](#)
- Secured global rank 1783 in Meta Hacker Cup 2025 Round 2. [Certificate Link](#)
- Achieved 1st Place** among 300+ participants in 21 Days of Code, an intra-college competitive programming contest organized by the Developers and Coders Club, NIT Agartala.
- Winner** among 100+ teams in Game of Codes, an inter-college ICPC-style team competitive programming contest.

Technical Skills

- Languages:** C++, Golang, JavaScript, TypeScript, Python, SQL, C, HTML/CSS, Bash
- Frameworks & Libraries:** Echo, Node.js, Express.js, Socket.IO, Tailwind CSS, Chart.js
- Databases:** PostgreSQL, Redis, MongoDB (Mongoose), MySQL
- Tools & OS:** Git, GitHub, Linux (Arch, Kali, Fedora, Ubuntu, CentOS), Vagrant