

Rahul Chakraborty

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

B.Tech in Computer Science and Engineering Nov 2022 – Present
University of Calcutta; **CGPA: 9.04/10.0** Kolkata, India

12th Standard: 84.8% 2021

10th Standard: 94.6% 2019

Kashinath Lahiri Public School (CBSE) India

WORK EXPERIENCE

Software Developer Intern | Internship Nov 2025 – Present
Extended Dynamic Systems Kolkata, India

- Designed and deployed scalable Golang-based microservices on AWS, strictly adhering to SOLID principles to enhance codebase maintainability and test coverage.
- Architected high-performance REST and gRPC API endpoints, optimizing database query execution to consistently achieve sub-200ms p99 latency under concurrent load.
- Established automated continuous integration and deployment (CI/CD) pipelines using GitHub Actions, reducing manual deployment times by 80% and ensuring reliable code delivery.

Technologies / Skills Used: Golang, Docker, AWS, gRPC, REST

PROJECTS

Autonomous Vehicle Simulation | [Website](#) | [GitHub](#) Jul 2025 – Present

- Built a 3D browser-based autonomous vehicle simulation environment rendering at a stable 60 FPS using Three.js and TypeScript.
- Engineered a custom feed-forward neural network algorithm from scratch (without external ML libraries) to process multi-directional sensor data for real-time collision avoidance.
- Optimized application performance by offloading intensive neural network matrix computations to Web Workers, preventing main thread blocking during active simulations.

Technologies / Tools Used: Three JS, Next JS, TypeScript, Web Workers

Cravyn - Food Delivery App | [Website](#) | [GitHub](#) Sep 2024 – Jan 2025

- Built a monolithic backend REST API utilizing Express.js and Bun to efficiently serve application data to a highly responsive, server-side rendered Next.js 15 client.
- Designed and integrated a secure, custom JWT-based authentication system utilizing HttpOnly cookies to protect user sessions and mitigate cross-site scripting (XSS) vulnerabilities.
- Modeled a robust relational PostgreSQL database schema to consistently handle concurrent user transactions, order processing states, and dynamic restaurant catalog management.

Technologies / Tools Used: React, Node.js, Express, Tailwind CSS, Next JS, Bun, PostgreSQL

ACHIEVEMENTS

- Status Code 2 Hackathon:** 1st place in the Quantitative Finance and RISE tracks.
- GATE 2025 (Computer Science):** Achieved an All India Rank of 1951 with a score of 656.
- It's Alive - AI NPC Game Jam:** Encouragement Award for developing NPC based game in 4 days.

SKILLS

Programming Languages: C, C++, JavaScript, Go, TypeScript

Frameworks & Libraries: React, Express.js, Next.js, Hono.js

Databases: PostgreSQL, MySQL, SQLite, MongoDB, Redis, Elasticsearch

Tools & Platforms: Docker, Kubernetes, Git, GitHub Actions, AWS

Languages Spoken: English (Fluent), Bengali (Native), Hindi