

Dhrutinandan Swain

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LinkedIn

GitHub

Portfolio

EXPERIENCE

Clinqo | Backend Engineer

Jan 2026 – Present

- Architected a multi-tenant HMS on Django and PostgreSQL with RBAC, audit-logged patient workflows, and SSE-driven real-time event delivery, serving **1,000+** appointments at sub-**50ms** median write latency.
- Orchestrated BullMQ worker queues and cron pipelines for reminders, report generation, and notifications; enforced idempotency keys and HMAC webhook signature verification, eliminating duplicate processing and reducing manual overhead by **80%**.
- Integrated a **RAG** analytics chatbot over Qdrant for natural-language clinical queries; applied composite indexing and Redis caching to drive p95 latency from **300ms** → **33ms**; deployed on AWS EC2 + Nginx via GitHub Actions CI/CD.

Scogo AI | Full Stack Engineer Intern

Jul 2025 – Oct 2025

- Shipped production-grade features across Next.js and TypeScript, establishing reusable component standards in a shared design system that lifted dashboard session engagement by **25%**.
- Accelerated data pipelines with TanStack Query, TanStack Table, and Redis caching (~**78%** hit rate); coupled async BullMQ workers to event-driven GraphQL resolvers, cutting API call volume by **30%** and background task throughput by **45%**.
- Wired an **LLM**-powered chatbot with SSE-streamed token delivery and Redis-backed retry logic, slashing perceived response latency from ~**8s** → **1.2s**; configured GitHub Actions for automated test gates and zero-downtime deploys.

GoUnplan | Backend Engineer

Jan 2025 – May 2025

- Designed high-throughput REST booking APIs on PostgreSQL with Redis read-through caching and composite index tuning, driving p95 response time from ~**270ms** → **180ms** — a **30%+** reduction at peak load.
- Hardened Razorpay flows with idempotency, HMAC webhook verification, and exponential-backoff retries, cutting failed transactions by **60%+**; deployed via Docker on AWS EC2 + Nginx with GitHub Actions.

PROJECTS

PharmaStock | Go, Echo, PostgreSQL, Docker, Nginx

Code · Demo

- Structured a B2B pharma inventory platform in Go (Echo) with feature-first modules, JWT auth, and RBAC across stockist, retailer, and admin roles serving **100+** active users.
- Spawned concurrent worker pools for CSV/PDF ingestion and batch catalog sync with stuck-job recovery; achieved sub-**20ms** medicine search via PostgreSQL trigram indexes and **85%+** test coverage.
- Provisioned on a Linux VPS with Docker, Nginx reverse proxy, TLS termination, and rate-limited endpoints for production-hardened deployment.

Plastrack | Node.js, Express, PostgreSQL, Prisma, Nuxt.js, Gemini, Cloud Run

Code · Demo

- Powered an AI waste-classification pipeline with Google Cloud Vision and **Gemini AI**, hitting **90%+** reported accuracy with context-aware reuse and disposal recommendations.
- Engineered Express/Prisma REST APIs with Firebase Auth, Cloudinary media processing, and Google Maps geospatial hotspot mapping; launched Nuxt.js web app with offline-first reporting.
- Packaged the full stack with Docker and released on GCP Cloud Run with auto-scaling for a single deployable, production-ready service.

TECHNICAL SKILLS

Languages: Go (Golang), Python, JavaScript, TypeScript, SQL, HTML/CSS

Backend & Frameworks: Django, Echo, Express.js, Next.js, GraphQL, REST APIs, WebSockets, BullMQ, Prisma, gRPC

AI & ML: RAG, LLM Integration, Google Cloud Vision, Gemini AI, pgvector, Qdrant, Pinecone

Databases & DevOps: PostgreSQL, MongoDB, Redis, Firebase, Docker, AWS (EC2, S3), GCP (Cloud Run), Nginx, GitHub Actions

EDUCATION

National Institute of Technology, Rourkela

Aug 2023 – Jul 2027

Bachelor of Technology in Engineering (CGPA: 7.3)

Odisha, India

ACHIEVEMENTS

Hack4Bharat 2025 | Runner-up

Jun 2025

- Claimed **2nd place** among **300+** teams in a 36-hour hackathon; awarded for system design and execution.

Hack4Bengal 2025 | Top-10 Finalist

May 2025

- Placed in the **top 5%** of **200+** competing teams; recognized for backend architecture and AI integration depth.

LEADERSHIP

OpenCode & Google Developer Groups | President & Community Lead

Sept 2023 – May 2026

- Scaled **OpenCode**, **HackNITR**, and **GDG** to **1,500+** combined members; organized **HackNITR 5.0** and **7.0** for **700+** participants, coordinated **20+** workshops on backend systems and cloud, shipped **10+** community projects, and mentored **100+** students.
- Guided students on internship applications, resume building, and open-source contributions through OpenCode; mentored junior members on securing their first internships and contributing to real-world projects.