Rohith Prem S

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CAREER OBJECTIVE

Final-year CSE undergraduate (CGPA 9.4) with software engineering experience at IBM ISDL and five shipped full-stack and ML projects in Java/Spring Boot, React, and Python. Seeking a software engineering role building reliable, high-scale backend systems.

EDUCATION

Saveetha Engineering College — Chennai, Tamil Nadu
B.E. in Computer Science and Engineering; CGPA: 9.4/10 — *Aug. 2023 – May 2027*

EXPERIENCE

Software Engineering Mentee — Jan. 2025 – Mar. 2025
IBM India Systems Development Lab (ISDL) — *Bengaluru, Karnataka*

- Enhanced a production Ethereum fraud-detection system by refining feature selection and model evaluation, **reducing false positives by 15–20%**.
- Developed **5+ RESTful APIs** backing core services and frontend integration, improving data-flow reliability and eliminating manual processing steps.
- Analyzed enterprise software workflows across **3+ modules**, gaining hands-on exposure to large-scale system design and deployment practices.

Web Developer Intern — June 2024 – July 2024
Connect Infosystems — *Chennai, Tamil Nadu*

- Built responsive, cross-browser multi-page web interfaces in HTML/CSS with structured layouts and backend integration hooks.
- Collaborated with the development team to debug UI issues, optimize page performance, and improve overall website usability.

PROJECTS

EventX | *React, TypeScript, Vercel Serverless, PostgreSQL (Neon), Redis (Upstash), JWT* — GitHub | Live

- Real-time event ticketing platform where users browse events, hold a seat, and check out with a QR e-ticket, all on a stateless serverless backend.
- Made double-booking **physically impossible** using a Postgres `UNIQUE(event_id, seat_id)` constraint, verified by racing concurrent connections against a live database.
- Implemented self-expiring 2-minute seat holds with atomic **Redis SET NX PX** locks (no cleanup job), plus bcrypt + httpOnly-JWT auth, 2s polling sync, and QR-coded PDF e-tickets.

ChainGuard | *Python, LightGBM, scikit-learn, SHAP, FastAPI, Docker* — GitHub | Live

- Built an Ethereum address risk-scoring service that analyzes on-chain activity, flags suspicious wallets in real time, and provides interpretable explanations for every prediction.
- Trained a LightGBM risk classifier over **14 engineered on-chain behavioral features**, reaching **0.945 PR-AUC** vs. 0.574 for a logistic-regression baseline.
- Calibrated outputs with isotonic regression (Brier-verified), derived decision thresholds from the PR curve, and served **SHAP per-request explanations** from a single Docker image behind FastAPI.

Sift | *Java 21, Spring Boot 3.3, React 18, Vite, Caffeine, Docker* — GitHub | Live

- Unified search engine that returns live web, image, news, and video results as the user types.
- Streamed results with **350ms debounce + AbortController cancellation**, guaranteeing a stale response can never overwrite a newer one.
- Added server-side caching (Caffeine, 5-min TTL) for **sub-10ms** repeat queries and packaged the React build inside a **single runnable JAR**, keeping the search API key off the client.

Dockyard | *React 19, TypeScript, TanStack Query/Table, Tailwind v4* — GitHub | Live

- Inventory management system covering **6 operational modules** (dashboard, products, inventory movements, suppliers, warehouses, analytics) on one shared table pattern: search, sort, filter, pagination, bulk actions, keyboard nav, with a unified stock-status model and a documented design-token system.

Tack | *Next.js 16, TypeScript, Prisma, PostgreSQL, Auth.js v5, dnd-kit* — GitHub | Live

- Kanban-style task board with drag-and-drop cards and live multi-user sync, built entirely on **Next.js Server Actions** (no REST layer or data-fetching library), with optimistic updates and 3s sync that auto-pauses mid-drag, during in-flight mutations, and on background tabs.

TECHNICAL SKILLS

Languages: Java, Python, TypeScript, JavaScript, SQL, HTML/CSS
Frameworks & Libraries: Spring Boot, React, Next.js, Node.js, FastAPI, Prisma, Tailwind CSS, TanStack Query
ML & Data: LightGBM, scikit-learn, SHAP, pandas, NumPy, Parquet
Databases & Infra: PostgreSQL, Redis, Supabase, Docker, Git, Vercel, CI/CD, Vitest
Core: Data Structures & Algorithms, REST API Design, System Design, Concurrency

ACHIEVEMENTS & CERTIFICATIONS

- **1st Place (National)**, IBM Z Datathon 2024, among **150+ competing teams**; awarded a **$500 cash prize**.
- **Top 4 (National)**, ISRO–IIT Kharagpur Hackathon, among **500+ competing teams**; recognized for developing an innovative space-tech solution.
- **Semifinalist (National)** in L&T Techgium and Flipkart GRiD 7.0; selected among top-performing teams in nationwide engineering competitions.
- **Runner-up**, QuizOnQuants, Saveetha Engineering College; demonstrated strong analytical and quantitative problem-solving skills.
- **Oracle Database SQL Certified Associate (1Z0-914)**; earned industry-recognized credentials in SQL and database management.
- Solved **300+ DSA problems** on LeetCode; strengthened expertise in algorithms, data structures, and competitive programming.