

Aaryan Sharma | Software Engineer

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 LinkedIn |  GitHub |  LeetCode |  CodeChef

EDUCATION

- **K. J. Somaiya College of Engineering** 2023 - 2027
Bachelor of Technology 8.60

EXPERIENCE

- **Software Engineering Intern** December 2025 – Present
Almanet Professional Services Remote, Mumbai
 - Architected an **event driven video** processing pipeline on **Google Cloud Run** using **FastAPI**, decoupling intensive **FFmpeg** tasks into dedicated **background workers to asynchronously process 7-hour** match videos without API timeouts.
 - Engineered an **automated highlight extraction engine** utilizing **OCR** to detect scoring events, achieving a **3x** processing speed up by analyzing 1 hour of high-resolution footage in 20 minutes to generate player supercuts and enabling automated player analytics.
- **Software Engineering Intern** July 2025 – November 2025
Mining Roots Remote, Mumbai
 - Engineered a **non-blocking evaluation engine in Flask**, utilizing threading to process dynamic form submissions asynchronously and prevent API timeouts during high-latency AI operations.
 - Integrated **Google Gemini 2.5 Flash via optimized prompt engineering** to automatically generate complex, 3-tier hierarchical compliance reports from raw JSON form responses.
- **Embedded Systems Intern (ESP32, C/C++)** June 2025 – July 2025
Smowcode Remote, Andheri
 - Developed and validated **ESP32 peripheral libraries** using **ESP-IDF**, ensuring **memory safety** and **thread-safe execution** for real-world deployments.
 - Engineered **C integration layers** linking ESP-IDF hardware libraries to a visual IDE, utilizing **JSON** configuration files to map hardware pins and manage **library dependencies**.

LEADERSHIP

- **Creative Team Head, ISTE** (*Indian Society for Technical Education, KJSSE*) July 2025 – May 2026
- **Creative Team Member, ACM** (*Association for Computing Machinery, KJSCE*) July 2024 – May 2025

PROJECTS

- **NOVA | Predictive HR Analytics Platform** April 2026
React, TypeScript, FastAPI, Supabase, Groq LLM
 - Architected a **predictive organizational intelligence** platform using FastAPI and React, centralizing employee performance and attrition risk data via a Supabase PostgreSQL backend.
 - Engineered a **fault-tolerant AI evaluation engine** using Groq LLM, implementing a deterministic fallback architecture that guarantees strict JSON response contracts (risk scores, urgency, signals) even during provider outages.
 - **Secured sensitive workforce data** by enforcing strict Role-Based Access Control (RBAC) directly at the API dependency boundary, ensuring multi-tenant data isolation across Employee, Manager, and Executive tiers.
- **Kuber | Idempotent Payment Ledger (High-Concurrency System)** January 2026
Next.js, TypeScript, PostgreSQL, Prisma, Redis
 - Architected a **fault-tolerant** payment ledger using **double-entry** accounting and strict **idempotency** keys, ensuring **exactly-once transaction** execution during simulated network retries and concurrent node failures.
 - Implemented PostgreSQL Row-Level Locking (SELECT FOR UPDATE) within serializable transactions to prevent race conditions, successfully processing simulated loads of **10,000+ simultaneous transfers** with zero double-spend incidents.

SKILLS

- **Programming Languages:** JavaScript, TypeScript, Python, SQL, C++
- **Backend Development:** Node.js, Express.js, FastAPI, REST APIs, Redis, WebSockets, Concurrency Control
- **Frontend Development:** Next.js, React, Redux Toolkit, Tailwind CSS
- **Database & ORMs:** PostgreSQL, MongoDB, MySQL
- **AI & Automation:** RAG-based Pipelines, LLM Orchestration, OCR, OpenCV
- **DevOps:** Docker, CI/CD (GitHub Actions), AWS (S3, EC2)
- **Tools:** Git, Postman, Supabase, Firebase

ACHIEVEMENTS / CERTIFICATIONS

- **2nd Place at AlgoQuest 2025, National level AI/ML Hackathon**
- **ETHGlobal New Delhi Hackathon Hacker (2025)**
- **GSSoC '24 Contributor | 500+ points in Open Source contributions**
- **3rd Place - CodeForge Arena**
- **1600+ LeetCode Rating, 2-Star CodeChef**