

# Mayank Sharma

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Software engineering student focused on backend systems, AI-powered applications, and developer tooling. Open source contributor to React Native core and sktime. Ships end-to-end.

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, TypeScript  
**Frontend:** React.js, Tailwind CSS, Vite, Framer Motion, Socket.io-client  
**Backend:** Node.js, Express.js, FastAPI, REST APIs, WebSockets, JWT, Event-Driven Architecture  
**AI / ML:** LangGraph.js, LangChain, Whisper STT, Piper TTS, OpenRouter API, Groq API, Anthropic API  
**Infra & CS:** MongoDB, PostgreSQL, Redis, SQLite, Docker, Linux, Prisma, Git, GitHub Actions, Jest, System Design, DSA

## OPEN SOURCE CONTRIBUTIONS

**React Native – Facebook / Meta** Jul. 2026  
*Open Source Contributor | Core Repository (119k+ GitHub stars)* Remote

- Merged PR #57487 – fixed silent corruption of decimal `transformOrigin` values (e.g. `12.5px` parsed as `[5,5,0]`); updated JS tokenizer regex and added C++ regression tests in `CSSTransformOriginTest.cpp`.

**sktime / skpro – Probabilistic ML Library** Mar. 2026 – Present  
*Open Source Contributor | 1.2k+ GitHub stars, 134k+ monthly PyPI downloads* Remote

- Merged PR #813, #833, #917, #934 – correctness fixes, validation refactoring, and CI improvements across the probabilistic forecasting ecosystem.
- Fixed critical bug in `SquaredDistrLoss` (`log.pdf` used instead of `pdf`); refactored `CyclicBoosting` validation eliminating 60+ lines of duplicated logic, maintaining 100% test coverage.

## PROJECTS

**LifeLine** | *Node.js, Express, MongoDB, Redis, PostgreSQL, React, TypeScript* | Live 2026

- Real-time hyperlocal blood emergency matching platform – AI parses natural-language requests via OpenRouter (GPT-4o-mini) with an 8-second `AbortController` timeout and deterministic regex fallback guaranteeing zero downtime.
- Atomic distributed locking (`SET NX PX 900000` via Redis) eliminates double-booking race conditions – validated under 20 concurrent requests; exactly 1 acquired the lock, 19 returned 409 Conflict.
- Polyglot persistence: MongoDB `$geoNear` resolves top-10 donors within 50 km in under 100 ms; Redis for sub-millisecond locks and instant session revocation; PostgreSQL + Prisma for immutable audit logs.

**METHER OS** | *FastAPI, React 19, TypeScript, LangGraph.js, Docker, SQLite, Whisper* May 2025 – Present

- Event-driven backend (FastAPI + asyncio) with a pub/sub `EventBus` orchestrating 14 loosely-coupled agent tools – independent tool execution, async state propagation, and a two-tier memory system (rolling buffer + SQLite-backed LLM summaries).
- Integrated voice (Whisper STT + Piper TTS), Google Workspace APIs, WhatsApp automation, and dynamic LLM routing across DeepSeek, NVIDIA NIM, and llama.cpp – fully offline-capable; open-sourced.

**AI Dataset Quality Inspector** | *FastAPI, Pandas, SciPy, React* | Live Feb. 2026 – Present

- Dataset validation API: KS-test drift detection, PSI divergence, EEOC 4/5ths fairness auditing, and schema validation – sub-5ms preview latency via local caching; expanded diagnostic checks from 2 to 5 in a single pipeline pass.

## EDUCATION

**JECRC University – Kalvium Software Product Engineering Program** Jaipur, Rajasthan  
*B.Tech in Computer Science Engineering* Jul. 2025 – Jul. 2029 (Expected)

**Vidya Niketan Birla Public School** Pilani, Rajasthan  
*Senior Secondary – PCM with Computer Science* Completed Apr. 2025

## ACHIEVEMENTS

**LeetCode** – 227 problems solved (58E / 126M / 43H); 89-day max streak; 200 Days Badge 2026 | Mayank.2812  
**IT Wizard Award** – Annual Day 2025, Birla Public School Pilani    **Best Website Creator** – Birla Public School, 2024  
**IPSC IT Fest 2025** – 2nd Place, Web Development    **HeLa Crossroads Workshop** – First verified DApp deployment; Web3, smart contracts