

PRATIK KALE

Blockchain Infrastructure & Systems Engineer

✉ Email 📞 +91 9970576362 🌐 GitHub 🌐 LinkedIn 🐦 X 🌐 Portfolio

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Rust, Solidity
Blockchain: Solana (Anchor, Pinocchio, LiteSVM, web3.js), Ethereum (Foundry)
Backend/Infra: Node.js, WebSockets, Kafka, Redis, PostgreSQL, Prisma, AWS, Docker, CI/CD, Prometheus, Grafana
Frontend: Next.js, React, Tailwind CSS, Electron, React Native

ENGINEERING EXPERIENCE

Backend Developer – OnlyFounders
Freelance

Blockchain Infrastructure & Indexing
Aug 2025

- Built a Solana liquidity-pool indexer capturing on-chain transactions, deriving token prices, and streaming real-time LP metrics to production dashboards.
- Integrated token launch and liquidity flows across DBC and DAMM v2, connecting on-chain state with backend systems.
- Implemented CI/CD pipelines and deployed Prometheus and Grafana for infrastructure monitoring, observability, and alerting.

Founder & Lead Developer – DecentralWatch
Grant-Funded Project

Decentralized Infrastructure / DePIN
Mar 2025 – Jun 2025

- Architected a decentralized uptime monitoring network, scaling to 50+ validators across 6 countries in one month.
- Designed a gasless WebSocket relay architecture coordinating distributed validators and mirroring state on Solana.
- Achieved sub-100ms global validation latency through multi-region relay and real-time communication optimizations.
- Built a secure Electron validator client with local keypair generation, authentication, and distributed validation workflows.

PROJECTS

Anvil – Solana Program Optimization & Verification Pipeline
Grant-Backed | Rust | Solana | Anchor | Pinocchio | LiteSVM

GitHub

- Built a compiler pipeline transforming Anchor programs through a 100+ kind Solana IR into optimized Pinocchio and native Rust.
- Developed LiteSVM differential verification comparing account data, lamports, and owner byte-for-byte across runtimes.
- Verified 150 differential test files and 14+ real-world Anchor programs with byte-identical post-execution state.
- Achieved 30–48% measured compute-unit savings across benchmarked programs while preserving execution semantics.
- Scaled compatibility to 64/64 deployable demo programs and 193 real-world cargo-build regression gates.

Flowrge – Event-Driven Web3 Automation Platform

GitHub

TypeScript | Node.js | Solana | WebSockets | Distributed Workers

- Built an event-driven Web3 automation platform connecting webhook and blockchain triggers to programmable Solana actions.
- Designed independent web, processor, and worker services for asynchronous execution and secure wallet operations.
- Implemented multi-action workflow execution with distributed workers processing trigger events and queued actions.

OPEN SOURCE

SolSocket – MagicBlock Ephemeral Rollups SDK

npm

TypeScript | Solana | MagicBlock | Real-time SDK

- Built an open-source TypeScript SDK on top of MagicBlock Ephemeral Rollups, simplifying development of real-time Solana applications through high-level APIs and session abstractions.
- Published the package on npm and reached 500+ downloads in the first week.

Block's Buzz – Open Source Contributor

GitHub

Rust | Distributed Systems | Nostr

- Contributed four production-quality Rust pull requests to Block's Buzz (24k+ GitHub stars), fixing workflow deletion, relay synchronization, CLI parsing, and event-processing bugs.
- Reproduced distributed-system bugs locally, wrote regression tests, and shipped fixes through maintainer review.

EDUCATION & ACHIEVEMENTS

B.S. in Data Science and Applications

Indian Institute of Technology Madras

Sept 2023 – Present

Selected Achievements

Recipient of multiple Web3 ecosystem grants

2x Winner – Solana × 100xDevs Hackathon

SuperDevs – Top 1% Selection

Superteam India – Member