Shaswat Raj

Forward Deployed Engineer · builds in the user's environment · Tech lead, Bitotsav '26 (~5,000 participants)
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EDUCATION

Birla Institute of Technology, Mesra— B.Tech, Computer Science & Engineering — Expected May 2028
Coursework: Data Structures & Algorithms, Operating Systems, Database Management Systems, Computer Networks, Object-Oriented Programming, Software Engineering.

SKILLS

Languages: TypeScript, Python, Go, SQL, Bash
Product & backend: Next.js, Node.js, FastAPI, PostgreSQL, Redis, REST, WebSockets
AI: OpenAI / Claude / Gemini APIs, RAG, vector search, Model Context Protocol
Deploy: Cloudflare Workers, Docker, GitHub Actions, Linux

EXPERIENCE

Bitotsav — BIT Mesra annual festival— Tech Lead '26 · Web team '25 — 2025 – 2026

- Gathered requirements from organisers, volunteers and college administration, and shipped changes against a date that did not move.
- Led and built the tech platform for ~5,000 participants: website, registration, team workflows, points system, admin panel and internal tools.
- Built signed-QR entry verification with a scanner that keeps working in no-network zones; Redis in front of PostgreSQL for hot paths.
- Ran live operations through the festival: on call for organisers and gate volunteers, fixing data and flow problems as they came up.
- 2025 (web team): built the festival site's frontend, improved its SEO, and created the first QR-based entry system used at the gates.

ACM BIT Mesra (student chapter) — Joint Secretary — 2026 – 2027

- Built the chapter's student developer platform with verified identities and rankings (acm-bitmesra.github.io #3, merged).

Open source — Contributor — 2022 – Present

- Merged: google-gemini/gemini-cli #20778, turn cancellation now reaches in-flight chat-compression requests (AbortSignal threaded through the execution layers).
- Merged: mofa-org/mofa #1577, #1587, #1594 (Rust): replaced a panicking unwrap() in cron parsing; #[non_exhaustive] public enums. Also preactjs/preact #5331 and codex-team/editor.js #3040.

PROJECTS

Kishan AI — *Python, computer vision, Telegram Bot API*

- Built for farmers where they already are (Telegram, not a new app): crop-disease diagnosis from photos, weather and mandi prices. AICTE Productization Fellowship 2025, national Top 500.

Dhwani, BIT Mesra music society — *Next.js, TypeScript* — dhwanibitmesra.in

- Delivered the society's site for a non-technical team against a fixed event date: requirements, design and build end to end.

IndexFast and MCP Pure — *TypeScript, Hono, Cloudflare Workers, MCP* — indexfast.co

- MCP servers on the edge; IndexFast submits URLs to Google, Bing and IndexNow from inside an IDE.

Debo — *Next.js, TypeScript, vector search, OpenAI* — debo.life

- Personal AI memory: ingests notes, links and audio, embeds them, and retrieves context through a chat interface. Built solo.

SopKit — *Next.js, TypeScript, WebAssembly* — sopkit.github.io

- 605+ privacy-first browser tools that process files client-side, with no uploads and no server compute.
- 4.3M+ requests and 213K+ visits in 30 days, built and operated solo.

HONORS

- AICTE Productization Fellowship 2025 — shortlisted in the national Top 500 (Kishan AI).
- Adobe University Hackathon 2026 — reached Round 3 with OmniAudit-GEO, an AI-search visibility auditor (team of two; live demo).
- Apify hackathon — prize ($100) for a production web-scraping actor.
- Technical writing on Dev.to, 45K+ followers.