

Piyush Das

Diploma Student in Engineering • Building AI-powered & Offline-first Applications

Location: India
Email: piyushdas1624@gmail.com
Portfolio: piyushdas1624.github.io
GitHub: github.com/Piyushdas1624
LinkedIn: linkedin.com/in/piyush-das-7246423a1
DEV.to: dev.to/piyushdas1624

PROFESSIONAL SUMMARY

Engineering diploma student specializing in leveraging AI APIs (Google Gemini, Model Context Protocol) to build practical, intelligent web applications. Focused on client-side optimization techniques—including DOM virtualization for gigabyte-scale log processing, client-side Math LaTeX parsing into native OpenXML Math, and local-first browser storage architectures.

KEY HONORS & ACHIEVEMENTS

- 🏆 **DEV.to April Fools Developer Challenge Winner (April 2026):** Awarded top prize in the official DEV.to Developer Challenge for **Volex (Volume by Exercise)**, a zero-dependency workout volume tracking web app with IndexedDB local storage.

TECHNICAL ARSENAL

- Languages:** TypeScript, JavaScript, Python, C, Java, HTML5/CSS3
- Frameworks & Frontend:** React, Next.js, Node.js, Express, FastAPI, DOM Virtualization
- Databases & Offline Storage:** SQLite, IndexedDB, Web Workers
- AI Integrations & Tools:** Google Gemini API (Pro & Flash), Model Context Protocol (MCP), Git, Cursor IDE, Antigravity

FLAGSHIP PROJECTS & ENGINEERING EXPERIENCE

💬 Stash AI & 🧛 GhostScreen | *Active Development*

- Stash AI:** Personal knowledge management project focusing on clean architecture design, multi-model AI workflows, and structured metadata index.
- GhostScreen:** Android privacy utility focused on screen overlay management and lightweight performance optimizations.

🏆 Volex | *DEV.to Challenge Winner*

- Engineered a fitness tracking web application that won the official DEV.to April Fools Developer Challenge (April 2026).
- Built with zero third-party framework dependencies, calculating real-time exercise volume ($\$Weight \times Reps \times Sets$) with persistent browser IndexedDB storage.

⚡ AniRec AI Platform | *Full-Stack Engineer*

- Developed an AI-powered Anime Recommender and Library Manager using **React, TypeScript, Node.js, and SQLite**.
- Orchestrated **Gemini Flash** for high-speed entity metadata parsing and **Gemini Pro** for context-aware recommendations across 4 external APIs (AniDB, AniList, MAL, Kitsu).

🏛️ CivicLens AI | *Hackathon Submission*

- Built an AI civic complaint triage platform using **React, FastAPI, and Gemini AI**.
- Implemented semantic caching for AI endpoints, reducing redundant API requests by up to 70%.

WhatsApp Chat Viewer | Frontend Engineer

- Developed a browser log parsing tool processing multi-gigabyte exported chat files locally in browser memory.
- Implemented **DOM virtualization (viewport windowing)** and **Web Workers** for background thread parsing to achieve smooth 60fps scrolling without memory crashes.

AI-to-Docx Converter | Software Engineer

- Built a **Next.js and TypeScript** conversion utility that translates AI chat outputs and LaTeX math formulas directly into native Microsoft Word OpenXML Math (OMML).

EDUCATION & QUALIFICATIONS

- **Diploma in Engineering** — West Bengal, India