Om Thakur

Backend Engineer · Mumbai, India

TEL +91 7756898550
MAIL omthakur2366@gmail.com
GIT github.com/MonsterFlick
WEB omthakur.in ↗

PROFESSIONAL SUMMARY

Backend engineer focused on distributed, database-backed systems and production reliability. Reduced a data synchronization workflow from 15 minutes to 4 seconds by replacing cron polling with message-queue processing, and took part in the root cause analysis of a production database outage. Experience spans low-latency WebSocket pipelines, offline-first background services, role-based access control, payment-webhook verification, and self-hosted infrastructure, built mainly with TypeScript, Python, and PostgreSQL.

15 min → 4 s	~700 ms	< 10 ms
Sync time after replacing cron polling with a message queue (~99.5% reduction)	Turnaround of a Python WebSocket pipeline on self-hosted GPUs	Response time of a stateless open-source SVG API

EXPERIENCE

Founding Software Engineer

Apr 2026 – Present

Krishora Technologies · Mumbai, India

- Engineered a low-latency Python processing pipeline integrating Pipecat, Exotel WebSockets, model inference, and CUDA-accelerated processing, achieving approximately 700 ms turnaround.
- Built the Node.js/PM2 service router for Sevak AI, using Qdrant and the nomic-embed-text embedding model for retrieval.
- Deployed and maintained infrastructure including Dograh, Mailcow, Nginx, Cloudflare SSL, and a ProGuard-protected Expo application.

Software Developer

Aug 2025 – Apr 2026

Cyber Intelligence and Research Lab (CIARL) · Thane, India

- Developed Kotlin/Java Android background services with encrypted SQLite queues to prevent field data loss during intermittent connectivity.
- Implemented secure backend integrations for managed environments.
- Developed React/PostgreSQL applications with authentication, role-based access control (RBAC), and user management.
- Built a legal-domain RAG pipeline with document ingestion, semantic retrieval, and citation-backed responses.
- Developed Matrix-based real-time communication applications supporting chat, voice, and video.

Software Development Engineer Intern

Aug 2024 – Feb 2025

Sumeru Technology Solutions Pvt. Ltd. · Bengaluru, India

- Replaced polling-based cron workflows with the Flexbase message-queue service, reducing synchronization time from 15 minutes to 4 seconds (approximately 99.5%).
- Participated in the root cause analysis of a production database crash, helping identify that a payment-related cron job repeatedly retried failed requests, producing simultaneous request bursts that overwhelmed the database.
- Migrated legacy PHP functionality to JavaScript and TypeScript; developed and tested backend APIs using Deno Edge Functions and Postman.
- Debugged and resolved Deno/TypeScript type-inference problems.
- Investigated Drizzle ORM integration with Supabase Row-Level Security (RLS).
- Led a team of four in evaluating Novu against a custom notification-system implementation.

TECHNICAL SKILLS

Languages & Runtimes	TypeScript, JavaScript, Python, SQL, Bash, Node.js, Deno
Backend & Distributed Systems	REST APIs, WebSockets, Microservices, Flexbase Message Queues, Webhooks, Asynchronous Processing, Background Services, Deno Edge Functions, Next.js Edge Runtime
Databases & Data Systems	PostgreSQL, Supabase, MySQL, Redis, SQLite, Qdrant, Row-Level Security (RLS)
Infrastructure & Tooling	Docker, Linux, Nginx, Cloudflare SSL, PM2, Git, GitHub, Postman, PowerShell
Additional Technologies	Drizzle ORM, RAG Pipelines, Semantic Retrieval, Vector Embeddings, Ollama, Prompt Orchestration

SELECTED PROJECTS

Digital Commerce & Entitlement Platform

store.sowebuild.in

Next.js 15 · TypeScript · Supabase · Razorpay

- Built a digital commerce platform with payment verification and asset-access control.
- Implemented dual-verification checkout combining synchronous API verification with HMAC-SHA256 webhook verification.
- Encrypted digital products at rest using AES-256-GCM authenticated encryption, utilizing SHA-256 key derivation and randomized IVs to prevent plaintext exposure.

devpic — Stateless Mathematical SVG API

github.com/MonsterFlick/devpic

TypeScript · Next.js Edge Runtime

- Built an open-source, stateless REST API that generates deterministic SVG patterns, geometric meshes, and UI assets using mathematical algorithms.
- Achieved sub-10 ms response times with no database or persistent storage dependencies.

Agni — Local AI Automation Agent

github.com/MonsterFlick/Agni

Python · Ollama · PowerShell · Windows APIs

- Developed an offline automation agent that translates natural-language instructions into structured Windows actions.
- Built an authenticated API that processes user intent and executes permitted local commands.
- Implemented command blacklisting, protection against destructive operations, execution logging, script caching, and an automated repair loop driven by execution errors.

Fin Read — Offline-First Finance Tracker

github.com/MonsterFlick/Fin-Read

Kotlin · Android SDK · Room Database · Supabase · Material 3

- Built an Android finance application that extracts transaction information from SMS and payment notifications to automate expense categorization.
- Implemented offline-first persistence with Room Database and cloud synchronization with Supabase.
- Developed the interface using Material 3.

EDUCATION

Bachelor of Science in Information Technology (B.Sc. IT)

Aug 2021 – Apr 2024

Sonubhau Baswant College, University of Mumbai

- CGPA: 8.55/10; graduated with First Rank in the college.
- Led the final-year project team as project head.

CERTIFICATION

Data Science Training

Oct 2023

Internshala · Certificate ID 263gl7b3rur

VOLUNTEERING

Assistant Professor (Volunteer)

Jun – Aug 2024

Bhimrao Pradhan College, University of Mumbai

- Taught core subjects to B.Sc. IT students; mentored students and created structured educational content.