SHERDIL LODHI

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PROFESSIONAL SUMMARY

Full Stack Software Engineer and Technical Team Lead specializing in Next.js, Node.js, and TypeScript, building production software since 2023. Currently lead a team of 5 delivering client platforms end to end, owning architecture, code review, client scoping, and release. Shipped systems at operational scale: fleet management tracking 1,500+ vehicles, messaging infrastructure handling 2,000 SMS and 300 outbound calls per day, Stripe-backed payment flows, and multi-tenant SaaS with row-level isolation. Second focus in AI engineering: retrieval-augmented generation (RAG) over pgvector, OpenAI, Claude and Gemini APIs, tool-registry architectures where the LLM selects and dispatches tools at runtime, and n8n-driven automation pipelines. Ships with Docker, CI/CD, and Jest-driven testing on AWS, GCP, DigitalOcean, and Vercel.

EDUCATION

Bachelor of Science in Computer Science

COMSATS University Islamabad, Lahore Campus | Sep 2019 - 2023

CORE SKILLS

Languages & Core: TypeScript, JavaScript, Node.js, Express.js, NestJS, Next.js, React.js, Vue.js, Flutter, Riverpod, Python, Tailwind CSS

AI & Agentic Engineering: RAG (retrieval-augmented generation), embeddings, vector search (pgvector), OpenAI API, Claude (Anthropic), Gemini API (Vertex AI), PyTorch, Meta SAM 3D Body, Google ML Kit, AI image generation, AI agents, agentic tool-based architectures, tool registries and dispatch, LLM integration, prompt engineering, n8n, Cursor, Claude Code

Data: PostgreSQL, Prisma ORM, MongoDB, MySQL, Supabase, data modeling, row-level security, pg-boss job queues

Cloud & DevOps: AWS (EC2, S3, SES), GCP, DigitalOcean, Vercel, Docker, Nginx, PM2, CI/CD, GitHub Actions, Codemagic, Runpod Serverless (GPU)

Engineering: RESTful API design, JWT and OTP authentication, RBAC, Jest, unit and integration testing, Stripe, Telnyx, Puppeteer, IoT telemetry

PROFESSIONAL EXPERIENCE

Technical Team Lead

QuisHub | Jun 2026 - Present

- Lead a team of 5 engineers delivering client platforms end to end - rental management SaaS, USPS mail-forwarding automation, SMS and voice outreach, and a digital license store - owning architecture, code review, and release across Next.js, Node.js/TypeScript, and Flutter.
- Own production infrastructure on AWS EC2, GCP, DigitalOcean, and Vercel: containerized PostgreSQL, Nginx, PM2, S3 backups, CI/CD pipelines, and unattended nightly n8n batch automation.
- Set engineering standards - TypeScript, Jest and integration test suites, documentation - and run client scoping, technical proposals, QA sign-off, and go-live directly with clients.

Full Stack Software Engineer

Falkenherz Group | Apr 2025 - Jun 2026

- Delivered fleet and waste management features for FAMS, deployed for Tadweer in Abu Dhabi, tracking **1,500+ vehicles** across zone-based collection operations.
- Built AT&T M2X telemetry pipelines driving real-time vehicle monitoring, automatic zone and anomaly event generation, and operational logging; covered backend API routes with Jest unit and integration tests.
- Designed Vue.js geospatial map interfaces for live vehicle positions, collection zones, and field events.

Software Engineer II, Full Stack

Septem Systems | Sep 2023 - Apr 2025 | Promoted from Associate Software Engineer, Sep 2024

- Led a team of **4 engineers**, owning architecture and technical direction for TypeScript full-stack applications across React.js, Next.js, Node.js, NestJS, and Express.js.
- Acted as the direct technical contact for clients through requirements, scoping, and delivery, without a senior engineer intermediary.
- Designed JWT-secured REST APIs over PostgreSQL and MongoDB via Prisma ORM; wrote Jest suites for critical endpoints and business logic, and containerized services with Docker for consistent staging and production deploys.
- Implemented JWT and Supabase Auth with Cloudinary and Firebase media handling; built mobile-first UI with Tailwind CSS and Material UI, and ran code reviews and sprint planning.

Front-End Developer

NEXYOSSolutions (Apr 2023 - Aug 2023) & DATXOC (Feb 2023 - Apr 2023) | Remote

- Built React.js and Next.js interfaces with TypeScript, SSR, and dynamic routing; converted Figma designs into responsive Tailwind CSS UIs and refactored components to improve Lighthouse scores.

PROJECTS

Wearly - AI Virtual Try-On & 3D Body Model (Flutter | NestJS | TypeScript | Prisma | PostgreSQL | Gemini | PyTorch | Runpod | AWS)

- Built a virtual try-on mobile app: the user saves a photo, snaps a garment in a shop and sees it on themselves via Gemini (Vertex AI) image generation. Flutter app with Riverpod, in-app camera and on-device ML Kit pose checks, and a 3D model viewer.
- Shipped a NestJS + Prisma + PostgreSQL backend with a pg-boss job queue, S3 storage, per-device usage caps and an audited admin panel, plus a Python/PyTorch GPU service (Meta SAM 3D Body) on Runpod Serverless that turns one photo, height and weight into a 3D body model in about 12 s. 600+ Jest and Flutter tests; CI builds via GitHub Actions and Codemagic.

ONI - Agentic AI System (Next.js | Node.js | TypeScript | OpenAI | MongoDB | OAuth)

- Architected an agentic AI platform on the OpenAI API with a modular tool registry that the LLM queries and dispatches against at runtime, selecting tools from real-time model decisions rather than hardcoded branching.
- Built the TypeScript backend on Node.js and Express.js with a tool registration and dispatch pipeline, extensible to new capabilities without touching the agent loop; shipped social media automation and utility tools on it.

AI Operations Copilot - Multi-tenant RAG Platform (Next.js | TypeScript | PostgreSQL | pgvector | Gemini)

- Built a RAG pipeline from first principles (no LangChain): PDF extraction, token chunking, batched embeddings and HNSW vector search in pgvector, with streamed answers citing sources down to the PDF page.
- Tenant-scoped retrieval, a Postgres job queue with retries and crash recovery, 49 integration tests and Playwright E2E.

Leasy Link - Rental Management SaaS (Flutter | Node.js | TypeScript | Prisma | PostgreSQL | Next.js | Jest)

- Built a multi-tenant rental management SaaS - Flutter mobile app, Node.js/Express.js TypeScript REST API, and Next.js admin panel - with phone-number OTP login, JWT authentication, and subscription billing. Launching Sep 2026.
- Automated PDF receipts, statements, and leases with Puppeteer and pdf-lib, including time-limited digital signature links and S3-compatible storage; covered billing, balance, and OTP flows with **350+ Jest and Flutter tests**.

Postal Solutions - USPS Mail Forwarding Automation (Next.js | Node.js | PostgreSQL | Stripe | AWS | n8n | IPP)

- Built an automated USPS mail-forwarding platform for university housing - a Next.js order form and admin panel over a Node.js/Express.js TypeScript REST API with Prisma ORM and PostgreSQL.
- Replaced a manual daily workflow with an unattended n8n batch pipeline: order grouping, Puppeteer-generated labels and cover sheets, PDF archiving to AWS S3, and IPP print dispatch to network printers. **180+ Jest integration tests**, deployed on AWS EC2 behind Nginx.

QuisHub Messaging - SMS, Voice & Inbox Platform (React | Node.js | TypeScript | PostgreSQL | Telnyx)

- Built the team outreach and conversation-inbox platform running internal sales operations at **2,000 SMS and 300 outbound cold calls per day** - React, Vite, TypeScript, and Tailwind CSS on a Node.js/Express.js TypeScript REST API over PostgreSQL.
- Implemented JWT authentication with role-based access control, granular permissions, audit logging, and validated CSV import; maintained **240+ automated tests** and deployed to a GCP VM behind Nginx with PM2.

FAMS - Fleet & Waste Management System (Vue.js | Node.js | PostgreSQL | IoT | M2X | Jest)

- Fleet platform deployed for Tadweer, Abu Dhabi's waste management authority, tracking **1,500+ vehicles** with zone-based collection tracking, IoT device integration, and real-time operational monitoring.
- Designed interactive Vue.js geospatial interfaces for collection zones, vehicle positions, and field events; integrated the AT&T M2X IoT platform to ingest telemetry and auto-generate zone and anomaly events.

Digital License E-commerce Platform (Next.js | Node.js | TypeScript | PostgreSQL | Prisma | Docker | JWT)

- Built an e-commerce platform for automated digital software license delivery, covering the full order, payment, and license key delivery workflow with no manual fulfilment step.
- Implemented role-based access control (Admin / Client / Support) with JWT and bcrypt, a license key pool management system, and an admin dashboard for product, order, and user lifecycle management.

ESGTree - ESG Metrics & Compliance Platform (MEVN | MySQL | Vue.js | Node.js)

- Engineered core reporting features for an enterprise ESG platform on the MEVN stack, letting organizations track Environmental, Social, and Governance metrics at scale.
- Built data collection modules with MySQL and Express.js, designed RESTful APIs for compliance reporting, and developed dynamic Vue.js dashboards for enterprise stakeholders.