

HASEEB AHMED SIDDIQUI

CO-FOUNDER & CTO | FULL-STACK ARCHITECT

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PROFESSIONAL SUMMARY

Co-Founder and CTO with 10+ years shipping production-grade enterprise platforms. Leading **The Tech IO** delivering **NestJS/Next.js microservice architectures, government QR verification systems, offline-first PWAs with field-level encryption, AI-powered SaaS platforms, and multi-tenant enterprise suites** for clients in **Saudi Arabia, the United States, Japan, and Pakistan**. 25+ production applications. 69 repositories across 8 organizations. Recent flagship: a 70-model Office Management Suite (330 endpoints), a 20-module TMS (135 endpoints), and a 6-repo microservices e-learning marketplace (300+ endpoints, Terraform AWS IaC, Stripe/PayPal, Agora live video). Deep expertise in TypeScript, NestJS, Next.js, Laravel, React, PostgreSQL, MongoDB, Prisma, Terraform, Docker, and AWS/Azure cloud infrastructure.

FLAGSHIP PROJECTS (2024-2026)

Office Management System — Multi-Tenant Enterprise Suite — Internal Product | LARGEST PROJECT (330 Endpoints, 70 Models)

Stack: NestJS, Prisma, Next.js 15, PostgreSQL, TypeScript

- Architected the largest system in the portfolio: a multi-tenant office suite combining HRM, CRM, Project Delivery, and Finance into one platform with 49 controllers, approximately 330 REST endpoints, and 70 Prisma models.
- HRM module: employee management, attendance tracking with breaks, leave types and requests, payroll runs with salary config, tax slabs, payslips, timesheets, and public holiday management.
- CRM module: lead sources, lead pipeline with configurable stages, client and contact management with full relationship tracking.
- Delivery module: projects, team members, task management with comments and status tracking, support tickets with threaded replies.
- Finance module: invoices, payments, expenses, purchase orders, suppliers, products, and stock movement tracking.
- AI layer: smart-view analytics, team-pulse engagement tracking, cash-flow forecasting, and retention scoring for predictive HR insights.
- Multi-tenant architecture with Organization model, subscriptions, plan limits, API keys, webhooks, and dynamic RBAC (Role/Permission/RolePermission/UserRole tables).
- Flutter mobile companion app with dual-database synchronization for offline/online capability, GPS-based geolocation attendance, and automated voice note transcription.

ILS TMS — Transport Management System — Indus Logistics PK | Pakistani Logistics Operator

Stack: NestJS, Prisma, PostgreSQL 15, Elasticsearch, Next.js (App Router), TypeScript, Docker Compose, Caddy, Cloudflare

- Built a fleet, shipment, and invoicing platform (tms.induslogistics.pk) with 20 backend modules and approximately 135 REST endpoints.
- Modules: Operations (shipments 14 ep, routes 9, sites 5, container-types 5), Fleet (vehicles 11, drivers 9, dedicated-vehicles 6, vehicle-logs 7), Finance (invoices 13, payments 5, invoice-notes 4), Data (client-imports 11 with Excel column mapping, Elasticsearch full-text search), Platform (auth, users, settings, audit, dashboard, 7 report views).
- 29-model Prisma schema with shipment lifecycle enums (DRAFT to INVOICED), 13 expense types (TOLL_TAX, BHATTA, DETENTION_CHARGES, ADDA_CHARGES), vehicle ownership tracking (OWNED/OUTSOURCE).
- 35 frontend pages including aging invoice dashboards, Excel import with per-import history, and fleet management interfaces.
- 5-tier RBAC: SUPER_USER, ADMIN, FINANCE, OPERATIONS, VIEWER. Integrated Elasticsearch, PDFKit/pdf-lib for PDF generation, SheetJS for Excel import-export.

SMPA Verify — Document Scanning & QR Verification — Sindh Government (SMPA) | Government of Pakistan

Stack: npm monorepo, NestJS, Next.js 15, Python FastAPI + OpenCV sidecar, PostgreSQL, Prisma, Redis + BullMQ, MinIO, Caddy

- Government document verification system: operators scan documents, fit to page size, print HMAC-signed QR codes. Public verification at `/v/[token]` without login.

- Security-isolated monorepo: apps/api (sole holder of VERIFY_HMAC_KEY and STORAGE_KEY), services/imaging (non-root, read-only rootfs Python sidecar), shared geometry package for pixel-perfect consistency.
- 13 controllers, 66 endpoints. Forced 2FA onboarding (TOTP + recovery codes), region-scoped 5-tier RBAC (SUPER_ADMIN, REGION_ADMIN, OPERATOR, VIEWER, AUDITOR).
- 16-model database with document lifecycle (DRAFT to ARCHIVED with REVOKED), multi-page-size support, printer calibration profiles, idempotency keys, Argon2 hashing, encrypted-at-rest storage via MinIO.
- Python imaging sidecar: OpenCV + NumPy for document enhancement (COLOR/GRAYSCALE/BW), pypdfium2 for sandboxed PDF rasterisation.

Trainistan — Online Learning & Corporate Training Marketplace — 6-Repo Microservices Architecture on AWS

Stack: NestJS, TypeORM, PostgreSQL, Redis + BullMQ, Socket.IO, gRPC + protobuf, Next.js, React, Terraform (AWS IaC), Stripe, PayPal, Agora RTC, Firebase

- Multi-tenant e-learning marketplace: 6 repos (core backend, auth service, WebSocket gateway, cron scheduler, Next.js frontend, Terraform infra). 40 controllers, 300+ endpoints, 58 database models.
- Learning (courses, enrollments, progress, quizzes, certificates), Live (Agora RTC video rooms with lobby, host controls, spotlight, raise-hand), Corporate (departments, bulk enrollment, subscriptions, leaderboard), Commerce (Stripe + PayPal dual payments, wallets, payouts), Social (real-time chat, group messaging, discussions, announcements).
- 95-page frontend with 4 role dashboards (Student, Trainer, Corporate Leader, Admin). Google/Apple OAuth, i18n, Playwright + Vitest test coverage.
- Full Terraform AWS: EC2, VPC, CloudFront + OAC, S3, ECR with lifecycle, SSM Parameter Store, IAM with GitHub OIDC for keyless CI/CD.

Corporate AI Brain — B2B Intelligence SaaS — The Tech IO Internal Product

Stack: pnpm/Turborepo monorepo, Express + tRPC, Playwright + Temporal (RPA), MongoDB (18 models), Redis, Stripe, AWS S3 + KMS

- Multi-tenant B2B SaaS giving business leaders an AI intelligence hub. Ingests company email (Gmail/Outlook), documents (PDF/DOCX/CSV/XLSX), and scrapes KPIs from web portals via autonomous Playwright RPA agents.
- tRPC routers: auth, user, admin, billing, KPI, source, email, document, chat, agent, alert, briefing, settings. Daily briefings, alert rules with event triggers, audit logging, rate limiting, and plan-based limits.
- RPA connectors for Shopify, QuickBooks, and Google Analytics. Temporal workflow orchestration for long-running scraping jobs.
- 4-tier roles: owner, admin, analyst, viewer. Stripe billing integration, S3 + KMS for encrypted document storage.

SCTMP — Safety Compliance & Training Management — Client: 20/20ph | US Construction Enterprise

Stack: pnpm + Turborepo, Next.js 15 PWA (offline-first), NestJS, MongoDB (28 collections), Redis + BullMQ, MinIO/S3

- Offline-first safety compliance platform: foremen work on construction sites without connectivity and sync later. 5-workspace monorepo with 20 controllers, 70 endpoints.
- 6 background workers: PDF generation, Excel import, compliance reconciliation, reminder dispatch, email delivery, credential sweep for expiring certs.
- Field-level encryption with sensitive incident/claim data split into separate encrypted collections. Bilingual EN/ES interface. 5-tier roles: FOREMAN to EXECUTIVE.

TCMS — Training & Certification Management — Client: 20/20ph | Companion System to SCTMP

Stack: pnpm + Turborepo, NestJS, MongoDB, Redis + BullMQ, AWS S3

- Companion system sharing SCTMP's MongoDB (read-only) with 14 own tcms_-prefixed collections. QR-based session check-in, digital signatures, auto-generated certificates.
- Dual QR verification: TCMS certificates and shared SCTMP training records. Login-free public verification of worker's complete training history. 13 controllers, 49 endpoints.

CoElevate — Corporate Training & Cohort Platform — Client: Straxecute | FLAGSHIP Product

Stack: Next.js 16 (App Router), React 19, Prisma 6, PostgreSQL, CSS Modules + Design Tokens, Docker, GitHub Actions CI/CD

- Cohort-based corporate training platform: companies organized into groups with trainers, per-company content overrides, phase-based delivery with submission tracking.
- 19 pages, 40 API routes. Two-tier RBAC: Platform (SUPER_ADMIN, TRAINER) and Company (OWNER, ADMIN, MANAGER, MEMBER). OTP auth, invite tokens, leaderboard, workspace presence. 14 Prisma models.

Procurement Agent — AI Maritime Price Comparison — Client: Delaware Ship Supply | NJ, United States

Stack: Next.js, MongoDB (Mongoose), Anthropic Claude SDK, Playwright, Docker

- AI-powered maritime procurement platform: upload RFQ spreadsheets, auto-detect categories, scrape up to 9 vendor sites via Playwright, export comparison Excel with best prices.

- Normalisation dictionary with confirm-loop, inventory import with fuzzy match feedback, vendor auth (cookie upload + health checks), run history and metrics.

MCP Marketing Connector — SEO Intelligence Tool — The Tech IO | Internal Tooling (Live in Production)

Stack: Cloudflare Workers, Hono, MCP SDK, Google OAuth, GitHub Actions

- Self-built MCP server replacing Supermetrics: wires Google Search Console, GA4, and Google Ads directly into Claude. 17 tools including `gsc_quick_wins`, `gsc_cannibalization`, `gsc_content_decay`, `seo_page_performance`, and `seo_paid_organic_overlap`.
- Bundled seo-analyst Claude skill for automated SEO auditing. Deployed on Cloudflare Workers via Wrangler. Currently live and connected to production workflows.

PRODUCT PORTFOLIO (INTERNAL & CLIENT)

POS-Ecommerce — Retail POS + Storefront — The Tech IO Internal Product

Stack: Laravel, 200 routes, 34 models, 40+ tables

- Full retail POS with barcode scanner, cash register, online storefront with customer accounts, sales/returns, quotations, purchases/returns, stock adjustments/transfers/ledger, multi-warehouse and multi-branch, discount rules + coupons, expenses, finance, and REST API layer.
- 5 roles: Admin, Manager, Accountant, Cashier, Inventory. Built for Pakistani retail/distribution market.

School Management System — School ERP — The Tech IO Internal Product

Stack: Laravel, 213 routes, 19 models

- Multi-role school ERP: class/subject management, timetable, teacher assignment, attendance, examinations with schedules, marks register with grade bands, homework (assign + submit), fee collection, notice board, in-app chat with last-seen, calendar, per-role dashboards.
- 4 roles: Admin, Teacher, Student, Parent. Accountant reference in fee handling.

CRM — Lead-to-Estimate Sales Pipeline — The Tech IO Internal CRM

Stack: Laravel, 33 routes, 7 models

- Sales CRM with configurable pipeline stages (New Lead to Won/Lost), customer multi-phone management, enquiries with revenue and win probability tracking, estimate generation with line items and objectives.

License Management System — Client: 20/20ph | US

Stack: Laravel, 50 routes, 14 models

- Software license inventory and renewal tracker: license catalogue with approval status, annual cost, renewal history, vendor management, city-scoped manager access. City to Department to Division to Employee org hierarchy.

EARLIER CLIENT PROJECTS

MOVERS — Logistics Platform — Saudi Arabia

Stack: Laravel, MySQL, Kotlin (Android), Swift (iOS)

- Truck and driver booking platform with real-time status sync across web and mobile. Coordinated iOS/Android mobile teams.

Plumbing Router — Job Management — 20/20ph | US

Stack: Laravel, SQL Server, Blade, REST APIs

- Employee job assignment system from ERD design through deployment with field-to-office data sync.

Warehouse Management System — 20/20ph | US

Stack: Laravel, SQL Server, Azure CI/CD

- Web-based WMS with inventory tracking, stock management, and automated PDF/Excel reporting on Azure.

Telepart Services — Enterprise Platform — Tokyo, Japan (Ongoing)

Stack: React, Express.js, PostgreSQL

- Dynamic enterprise web platform with continuous feature delivery for a Japanese corporation.

AxisLogix — Corporate Website — Saudi Arabia

Stack: HTML5, CSS3, JS, PHP

- 5-page responsive corporate site with secure backend and CSRF protection.

WORDPRESS, E-COMMERCE & PLUGINS

WooCommerce Plugin Suite — The Tech IO

Stack: PHP, WordPress, WooCommerce

- Developed 4 custom WooCommerce/WordPress plugins: woo-custom-discount (pricing rules), Woo-Zee (store enhancements), wp-lead-download (lead capture), and LetSDesign-Testimonials-Carousel (testimonial display). All active and published.

ImportedVitamins.com — SIGMA PHARMA (Nature's Bounty)

Stack: WordPress, WooCommerce, Facebook Ads, Instagram, WhatsApp Funnels

- Full e-commerce platform with digital marketing strategy, ad campaigns, and conversion funnels.

BuzzinBeez.com — Premium Honey Brand

- E-commerce brand with product listings, sales funnels, and brand strategy for Pakistani market.

GenzJewellery.com — Fashion Jewelry (Owned Brand)

- Built and operated from sourcing to delivery with social media marketing and customer acquisition.

PROFESSIONAL EXPERIENCE

THE TECH IO | Karachi, Pakistan (Remote — KSA, US, Japan, Pakistan clients)

Co-Founder & Chief Technology Officer

October 2019 — Present

- Co-founded and scaled a software development company: 25+ production applications, 69 repositories across 8 GitHub organizations, serving international clients across 4 countries.
- Architecting systems using NestJS, Next.js, Laravel, and React with PostgreSQL, MongoDB, Redis, Elasticsearch, Prisma, TypeORM, and cloud infrastructure on AWS (Terraform IaC) and Azure (CI/CD).
- Building monorepo architectures (pnpm/Turborepo), microservices with gRPC + protobuf, background workers (BullMQ), real-time systems (Socket.IO), and AI integrations (Anthropic SDK, Temporal RPA, tRPC).
- Leading structured QA: 91+ test cases across 8 modules for ILS TMS. Playwright + Vitest automated testing for Trainistan. Swagger/OpenAPI documentation across all NestJS projects.
- Built internal products: Office Management Suite (330 endpoints), POS-Ecommerce (200 routes), School ERP (213 routes), CRM, MCP Marketing Connector, and Corporate AI Brain SaaS.
- Managing client relationships, proposals, and scope negotiations for projects ranging from \$2K to \$15K.

MOVERS COMPANY | Riyadh, Saudi Arabia (Remote)

Senior Web Developer (Part-time)

March 2023 — January 2026

- Part-time role building and maintaining a Laravel logistics platform for a Riyadh-based company while simultaneously running The Tech IO. Direct KSA employer experience.

BRIDGES SOLUTIONS | Remote — US-based Company, Los Angeles, CA

Lead Web Developer

October 2016 — September 2019

- Led frontend and backend development for US enterprise clients using PHP/Laravel, JavaScript/React, SQL Server, and MySQL. Mentored junior developers and established code review practices.

RK ENTERPRISES | Karachi, Pakistan

Office Administrator (IT & Accounting)

July 2013 — September 2016

- Managed office IT infrastructure, vendor coordination, and financial record-keeping.

TECHNICAL SKILLS

Backend: NestJS (Advanced), Laravel (Advanced), Express.js, tRPC, Python (FastAPI), Node.js, PHP, TypeScript

Frontend: Next.js 15/16 (App Router), React 19, TanStack Query, Zustand, Tailwind CSS, Radix UI, shadcn/ui, CSS Modules, Design Tokens

Mobile: Flutter (iOS/Android), PWA (Offline-first with sync)

ORM & DB: Prisma 6, TypeORM, Mongoose | PostgreSQL, MongoDB, Redis, Elasticsearch

Cloud & IaC: AWS (EC2, S3, CloudFront, ACM, ECR, SSM, IAM, Lambda, Cognito, API Gateway), Terraform, Azure (App Service, SQL DB, CI/CD, Data Factory), Cloudflare Workers

DevOps: Docker, Docker Compose, pnpm + Turborepo monorepos, GitHub Actions CI/CD, Caddy, Nginx, Certbot, Wrangler

Realtime & Async: Socket.IO, gRPC + protobuf, BullMQ workers, Temporal (RPA orchestration), WebSocket

AI & Automation: Anthropic Claude SDK, MCP Protocol + SDK, Playwright (web scraping/RPA), OpenCV + NumPy, Temporal workflows

Payments: Stripe, PayPal Server SDK, Agora RTC (live video), Firebase/FCM, Google/Apple OAuth, MinIO (S3-compatible)

Security: HMAC-signed tokens, field-level encryption, Argon2, TOTP 2FA + recovery codes, JWT/Passport, RBAC, CSRF/XSS, IAM, KMS

QA: Playwright, Vitest, structured test case execution (91+ cases), Swagger/OpenAPI, regression testing

CMS: WordPress, WooCommerce (custom plugin development), Shopify

DIGITAL MARKETING & E-COMMERCE

Platforms: Facebook Ads Manager, Instagram, WhatsApp Business, YouTube

Strategy: Engagement to conversion funnels, content strategy, brand positioning, product photography (Sony a6400)

Operations: Team task management, design approval workflows, campaign analytics, A/B testing

SEO: Built own MCP server replacing Supermetrics: GSC, GA4, Google Ads integrated into Claude for automated SEO auditing

ONLINE PRESENCE

Agency: thetechio.com

Portfolio: haseebahmed.me (Next.js + TypeScript, Hard Coffee design system)

LinkedIn: linkedin.com/in/haseeb-ahmad-siddiqui

EDUCATION

MERN Stack Development

2018 — 2019

AXIOM Institute — MongoDB, Express, React, Node.js

ACCP-PRO — Software Development (3 Years)

2015 — 2018

Aptech Computer Education — Application Programming, Software Design, Project Management, OOP

Dars-e-Nizami (Islamic Sciences)

Ongoing

Islamic Seminary — Classical jurisprudence, hadith sciences, Arabic language

CLIENT GEOGRAPHIES

Saudi Arabia: ILS TMS, MOVERS, AxisLogix

United States: 20/20ph (SCTMP, TCMS, Plumbing Router, WMS, License Mgmt — 5 projects), Bridges Solutions (3 years), Delaware Ship Supply (Procurement Agent)

Japan: Telepart Services (ongoing)

Pakistan: SMPA Verify (Sindh Government), Indus Logistics, Straxecute (CoElevate), ImportedVitamins, BuzzinBeez, GenzJewellery, Zodiac Printing, and others

Engagement: Fixed-scope projects (\$2K–\$15K), retainer development, hourly consulting, and full product partnerships

ADDITIONAL

Languages: English (Fluent), Urdu (Native), Arabic (Basic)

Availability: Open to relocation, on-site, hybrid, or remote engagements

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Code, Coffee & Compound Growth.