

MUHAMMAD USMAN ZUBAIR

AI-Native Builder · Full-Stack Developer · Designer & Visual Storyteller

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PROFILE

Builder and designer who ships end-to-end. I have scoped, built and shipped three production SaaS platforms almost entirely solo — a licensed desktop app for photographers, a multi-tenant hospitality platform running live hotels, and a multi-tenant e-commerce platform serving real merchant stores — with Claude (Claude Code) as my daily collaborator. I move comfortably between code, design and talking to non-technical users, turning fuzzy needs into something that actually runs. I'm drawn to social-impact work: my most recent role documents underserved communities for a nonprofit, much of my client work has been for schools, hospitals and trusts, and my e-commerce platform exists to give merchants in underserved markets a storefront they can afford. I'm energized by ambiguity and resource constraints — the messier the problem, the more I want it.

AI FLUENCY & TECHNICAL TOOLKIT

AI / LLM tooling: Claude (Claude Code, Claude API), prompt design & agentic workflows; generative media tooling — MidJourney, Firefly, Sora, Veo, Kling, ElevenLabs. I integrate AI into real production pipelines, not demos.

Engineering: Rust (Axum, SQLx, Tokio, Tauri), Go (chi, pgx), JavaScript / TypeScript / React, Svelte / SvelteKit, Astro (SSR), PHP / Laravel, Python; PostgreSQL, MySQL, SQLite, Redis; REST API design, multi-tenant architecture & Postgres Row-Level Security, offline-first sync, Ed25519 cryptographic licensing; Docker, Nginx, Cloudflare (DNS, Workers, R2/S3), Backblaze B2, Git / GitHub, Android / iOS / Windows release pipelines.

Design & media: Adobe Creative Suite (Photoshop, Illustrator, InDesign, Premiere, After Effects), Figma, DaVinci Resolve; photography, videography, 3D modeling & rendering.

Ways of working: Self-directed scoping & delivery, working with non-technical stakeholders, teaching/translating technical concepts, security-first thinking, production incident debugging, shipping under constraints.

PRODUCTS I'VE BUILT — SHIPPED AND RUNNING IN PRODUCTION

Merchora — multi-tenant e-commerce SaaS — **Founder, sole builder** (*Live in production*)

- Architected and shipped a production multi-tenant e-commerce platform — a Shopify alternative for Pakistan and other underserved markets — now serving live merchant stores across storefront, checkout, customer accounts, merchant admin and a platform super-admin layer. *Rust (Axum) + PostgreSQL 16 + Astro SSR, Dockerised on a VPS behind Nginx and Cloudflare.*
- Enforced tenant isolation **in the database, not the application**: PostgreSQL FORCE Row-Level Security with a deliberately unprivileged app role, plus composite (id, tenant_id) foreign keys to close the gap where FK checks bypass RLS. When a config regression re-introduced a cross-tenant leak I added a **boot-time privilege guard** that refuses to start if the app's own role could bypass RLS — turning a silent data-leak class into a loud startup failure.
- Built the REST API across 16 route modules with SQLx and typed error handling: transactional checkout with inventory reservation that rolls back on partial stock failure, atomic per-tenant order sequencing under concurrent checkouts, refunds with restocking, money as integer minor units to avoid float currency bugs, and background abandoned-cart sweeps that still respect RLS.
- Chose server-rendered Astro with **no client-side framework** so storefronts stay fast on slow mobile connections; shipped a visual theme editor with live preview over postMessage, CMS pages, discounts, shipping rates, product feeds, Meta Conversions API / GA4 / TikTok tracking with server-side de-duplication, and transactional HTML email that survives Outlook.
- Owned infrastructure end to end: 17 migrations run at boot on an elevated pool discarded before requests are served, custom-domain provisioning, Cloudflare R2 media over the S3 API, zero-downtime container recreation — plus production debugging that traced intermittent failures to ISP DPI resetting TLS on SNI, not a server fault.

Baam Crest — multi-tenant hotel & resort platform (PMS + POS) — **Founder, sole builder** (*Live in production*)

- Built a multi-tenant hotel & resort platform spanning property management and point-of-sale, with **four build targets from one codebase** — hotel web admin, a public guest booking site, a platform subscription admin and a device shell — plus Windows desktop and signed Android/iOS builds from the same React source via Tauri.

- Designed the **offline-first sync architecture**: venue machines run local SQLite and stay fully operational offline, pushing sales, bookings, expenses and room status to a PHP/MySQL cloud API — append-only and idempotent by UUID, so pushes never conflict — while catalog and pricing flow back down on the next pull.
- Wrote the device layer in **Rust (Tauri)**: device fingerprinting and cloud activation, booking-overlap assertions enforced before write, silent thermal receipt printing, and automatic room-status advance. Shipped guest online booking with Easypaisa payment callbacks and Firebase Cloud Messaging push to staff devices — including forwarding APNs tokens to Firebase manually to fix iOS token registration.
- Solved per-tenant subdomains without wildcard DNS from the host by writing a **Cloudflare Worker** that maps hotel-slug.baamcrest.com onto the booking app and passes the tenant slug to the public API; ran the release pipeline solo — Play Store AABs, sideload APKs, TestFlight uploads via altool, Windows installers.

The Gallery Pro — a licensed SaaS for photographers — **Founder, sole builder (2024 — Present)**

- Scoped, designed, built and shipped a complete commercial product solo: a cloud platform in *Go + SvelteKit + PostgreSQL* — client portals, gallery delivery, album proofing, CRM and subscription billing — plus a cross-platform desktop album-design app (*Tauri + React + Rust*) against the same API.
- Shipped the whole photographer workflow: **photo and video galleries** in multiple themes, **client favouritism that packages a selection into a ZIP**, Google Drive import, album proofing, and a **branded client portal** on each photographer's own subdomain or custom domain. Uploads go straight to object storage after in-browser resizing, with per-studio key namespacing and CDN-optimized AVIF/WebP delivery — cutting image weight ~60%.
- Built the business side too: a **CRM** with clients, payments, calendar, invoicing and analytics; **subscription billing** with plan enforcement, proration and lifecycle webhooks; per-account **storage metering** on a daily scheduler; and white-label branding down to each studio's logo and favicon.
- Designed the licensing & access system from scratch: Ed25519 server-signed, device-bound licenses verified in Rust with an offline-grace window. Ran my own security review of auth, storage access and request handling, and worked the backlog before shipping.
- Used **Claude (Claude Code)** as a **daily engineering collaborator across all three products** — architecture, Rust/Go/SQL implementation, security review and debugging — an AI-native workflow end to end.

EXPERIENCE

Photographer & Visual Content Lead — **Jabir Bin Hayyan Trust (nonprofit), Islamabad (2024 – Present)**

- Travel to project sites — often remote or underserved areas — to document beneficiaries, programs, and events for a nonprofit, then plan, shoot, and edit the visual stories used across campaigns and fundraising.
- Partner with communications and program teams to align visuals with organizational goals, to ethical standards — informed consent, dignity, accurate representation; also built the trust's website, wearing both hats inside a mission-driven organization.

Freelance Full-Stack Developer & Web Designer — **Self-employed (2018 – Present)**

- Delivered 20+ websites end-to-end — scoping, designing, building (custom code & WordPress/Shopify) and maintaining them — for clients including a hospital, a school, a nonprofit trust, a resort, and e-commerce stores.
- Acted as the bridge between non-technical clients and working software — explaining trade-offs in plain language.
- Handled SEO, performance, QA and ongoing support — owning the full lifecycle without a project manager.

Freelance Designer, Photographer & Video Editor — **Amazon e-commerce clients (2015 – Present)**

- Produced high-converting Amazon listing visuals (7-image stacks, A+/EBC content, storefronts), reporting up to a 70% lift in click-through for clients; combined photography, 3D rendering, and AI-generated assets.
- Edited and produced video — podcasts, educational series, social teasers — using AI for generation, voiceover and VFX.

EDUCATION & RECOGNITION

B.Sc. (Hons) Mechanical Engineering — **University College of Engineering & Technology, BZU (2010 – 2014)**

- Top-10 finalist, Nikon Film Festival Pakistan (2015); Top-30 finalist, 60-Second International Film Festival (2015).
- Claude Corps prerequisites: *AI Fluency & Claude 101* — completion in progress / proof to accompany application.