

Muhammad Waqas

Engineering Leader | Platform & Backend Architect

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SUMMARY

Engineering leader and backend architect with 11+ years building high-volume logistics and commerce platforms across Python/Django and PHP/Laravel stacks. Most recently architected and solo-built a multi-tenant SaaS fulfillment platform now live with paying merchants, integrating 10 courier networks behind a single interface and shipping a public Shopify App Store application alongside it. Co-founder and CTO of Fulflit, a live cross-border 3PL platform covering international rate engines, merchant wallets, settlement, multi-carrier tracking, and an LLM-powered shipment assistant built on tool-calling over production data. Previously led engineering teams and owned architecture for nationwide logistics systems processing tens of thousands of daily orders. Three published Shopify App Store applications. Deep experience in cloud migration, high-scale data architecture, and translating business operations into durable system design.

EXPERIENCE

Independent Software Consultant — Platform Architect | Karachi, Pakistan | Mar 2026 – Present

Client: Mynsh (formerly ApexFulfillment) — multi-tenant SaaS fulfillment platform

- Architected and solo-built a production B2B fulfillment platform now live with paying merchants — full ownership of backend, frontend, Shopify application, and infrastructure.
- Designed a courier abstraction layer integrating **10 logistics providers** (PostEx, Leopards, TCS, Trax, M&P, DigiDokaan, BluEx and others) behind a single contract interface, enabling new carrier onboarding without touching core booking logic.
- Built a 14-state order lifecycle engine with enum-backed state machines governing orders, shipments, and returns, eliminating invalid state transitions across concurrent fulfillment paths.
- Implemented ledger-based finance: double-entry inventory movement, automated invoicing, COD settlements, weight-based charge reconciliation, and PDF invoice generation.
- Designed role-based access control across 6 operational roles spanning seller, warehouse, support, and admin personas in a multi-tenant model.
- Published **Mynsh** to the Shopify App Store — public app handling OAuth, GDPR compliance webhooks, billing API, multi-location fulfillment, and real-time order synchronisation.
- Delivered a service-oriented Laravel 12 architecture (24 domain services, 56 models, 153 migrations) backed by 126 automated test suites.
- Built asynchronous processing for bulk order ingestion and continuous carrier tracking synchronisation, with queue health monitoring.

Stack: Laravel 12, PHP 8.2, PostgreSQL, Next.js 16, React 19, TypeScript, Remix, Shopify Polaris, Prisma, Docker, AWS

Co-founder & CTO — Fulflit | Karachi, Pakistan | Apr 2025 – Present

Cross-border 3PL international logistics platform — live and in active development

- Co-founded and solo-built an international 3PL platform handling cross-border order fulfillment, warehousing, and multi-currency settlement.
- Integrated **17TRACK** for unified multi-carrier tracking across international carriers, using webhook-driven event ingestion to surface real-time shipment status without per-carrier polling.
- Built an **AI shipment assistant** using LLM tool-calling over live order and multi-carrier tracking data — merchants query shipments in natural language and receive answers generated from real records rather than model recall.

- Designed the assistant's data boundary as a single auditable server-side scope object, so per-merchant isolation is enforced at the query layer and can never be influenced by model output; covered by a dedicated boundary test suite.
- Implemented streamed responses and persisted conversation threads for a responsive assistant experience across page reloads.
- Built a zone-based international rate engine supporting Express and Economy service tiers, with weight-band pricing, per-merchant rate cards, and full rate-change audit logging.
- Designed merchant wallet and settlement infrastructure — wallet transactions, settlement invoicing, financial audit trails, and configurable per-merchant settlement rules.
- Implemented KYC document workflows and merchant onboarding for regulated cross-border operations.
- Built order journey and tracking-event architecture giving end-to-end shipment visibility across international legs.
- Delivered warehouse receiving, inventory, and product management with automated warehousing charge runs.
- Integrated Shopify order ingestion with status mapping, plus bulk Excel-based booking for high-volume merchants.
- Built permission-driven reporting with server-side filtering and Excel export across order, financial, and operational datasets.

Stack: Laravel, PHP, MySQL, Blade, JavaScript, DataTables

Engineering Manager | Brandigo — Karachi, Pakistan | Aug 2025 – Jan 2026

- Led cross-functional engineering teams (backend, frontend, mobile) delivering production systems across international markets.
- Defined engineering standards, architectural guidelines, and release processes, improving system reliability and maintainability.
- Owned sprint planning, estimation accuracy, and delivery predictability across concurrent initiatives.
- Led a multi-disciplinary team spanning backend, mobile, QA, and BI engineers, providing technical direction and hands-on support across all four functions.
- Built financial and operational reporting pipelines, including Power BI data models and dashboards used by leadership and investors.
- Partnered with senior leadership and investors to translate business metrics into technical execution plans.
- Remained hands-on in backend development, contributing to Python/Django services alongside team leadership.
- Reduced production incidents through structured code review and clear ownership models.

Stack: Python, Django, PostgreSQL, Celery, RabbitMQ, AWS, Power BI

Principal Software Engineer | Brandigo — Karachi, Pakistan | Feb 2024 – Jul 2025

- Led architectural redesign of a US-only platform to support multi-country operations, enabling expansion into new regions.
- Designed country-aware configuration for taxation, pricing models, workflows, and operational rules without duplicating core systems.
- Standardised backend architecture for regional scalability while preserving centralised maintainability.
- Built asynchronous processing and distributed task workflows using Celery and RabbitMQ for high-volume background operations.
- Resolved critical production bottlenecks and architectural blockers that had stalled multiple teams.

Stack: Python, Django, PostgreSQL, Celery, RabbitMQ, AWS

Principal Software Engineer / Software Architect | TRAX — Karachi, Pakistan | Sep 2021 – Feb 2024

- Designed and evolved a nationwide logistics platform handling **tens of thousands of daily orders** under production constraints.
- Led infrastructure migration from **AWS to GCP**, optimising cloud architecture for scalability and cost efficiency.
- Re-architected the database layer for **billion-scale datasets** using partitioning strategies, substantially improving query performance and system stability.
- Eliminated performance bottlenecks affecting nationwide operations by redesigning data access and processing workflows.
- Established backend patterns supporting multi-source integrations and high-concurrency workloads.
- Served as architectural authority across teams, guiding long-term platform evolution.

Senior Software Engineer → Assistant Development Manager | TRAX — Karachi, Pakistan | Oct 2018 – Aug 2021

- Co-architected and launched a mission-critical logistics platform in 2018, later scaled to nationwide operational demand.
- Promoted to Assistant Development Manager, taking ownership of sprint planning, resource allocation, and execution strategy.
- Led estimation, task breakdown, and delivery coordination across engineering teams.

Web Application Developer | GoValued — Karachi, Pakistan | Feb 2016 – Feb 2017

Web Application Developer | EMarto Pakistan — Karachi, Pakistan | Mar 2015 – Dec 2015

PUBLISHED SHOPIFY APPLICATIONS

- **Mynsh** — Multi-courier fulfillment platform. Order sync, label generation, multi-location support, real-time tracking. (*Remix, Polaris, Prisma, Laravel API*)
- **Marco Booking** — Automated and manual order fulfillment with TCS and Leopards courier booking. (*Laravel, React, Polaris*)
- **Sonic Booking** — Rapid booking integration from Shopify to the Sonic logistics platform. (*Laravel, React, Polaris*)

TECHNICAL SKILLS

AI Engineering: LLM application development, tool-calling agents, Anthropic Claude API, structured tool design, prompt-injection mitigation, streamed LLM responses

Backend: Python, Django, PHP, Laravel, Node.js, Java, REST APIs, webhooks, service-oriented architecture

Distributed Systems: Celery, RabbitMQ, queue processing, asynchronous job pipelines, event-driven integration

Frontend: TypeScript, React, Next.js, Vue, Remix, JavaScript (ES6+), Tailwind, Bootstrap

Data & BI: PostgreSQL, MySQL, database partitioning, query optimisation, ledger design, Power BI data modelling, financial reporting

Cloud & Infrastructure: AWS, Google Cloud Platform, Docker, Linux, CI/CD

Commerce & Logistics: Shopify App development (OAuth, GraphQL Admin API, billing, GDPR webhooks), Shopify Polaris, courier API integration, 17TRACK, Magento, WordPress

Practices: Agile delivery, code review, automated testing (Pest/PHPUnit), technical documentation, JIRA, Git

SELECTED PROJECTS

- **Mynsh Fulfillment Platform** — Multi-tenant logistics SaaS: warehousing, inventory, courier orchestration, returns, and finance.

- **Fulflit** — Cross-border 3PL platform (co-founder): international rate engine, merchant wallets, settlement, KYC, 17TRACK multi-carrier tracking, and an AI shipment assistant.
- **Logistics Management System** — First mile, last mile, finance, CRM, HR, and reporting modules.
- **Warehouse Management System** — Warehouse operations platform (*Laravel, Vue 3*).

EDUCATION

Masters in Computer Science | Mohammad Ali Jinnah University, Karachi | 2017 – 2020

Bachelors in Computer Science | Mohammad Ali Jinnah University, Karachi | 2010 – 2014