# Furqan Ahmad

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## PROFESSIONAL SUMMARY

Full-Stack Developer with strong expertise in building production-ready web applications using Next.js and FastAPI. Experienced in designing scalable architectures, REST APIs, real-time systems, and integrating AI capabilities into modern web platforms. Proven ability to own projects end-to-end — from database design and backend API development through responsive frontend interfaces and cloud deployment. Adept at collaborating with remote teams, shipping features on tight deadlines, and maintaining high-availability production systems.

## TECHNICAL EXPERTISE

**Frontend:** Next.js, React.js, TypeScript, Tailwind CSS, HTML5, CSS3, Responsive Design

**Backend:** FastAPI, Node.js, Python, REST APIs, WebSockets, OAuth 2.0, JWT Authentication

**Databases:** MongoDB, PostgreSQL, Redis, Prisma ORM, Mongoose

**DevOps & Cloud:** Docker, Git, CI/CD, PM2, Nginx, DigitalOcean, Cloudflare, Linux/Ubuntu

**Integrations:** Shopify API/OAuth, Google OAuth, Resend, Stripe, Selenium, MinIO

**AI Integration:** OpenAI API, LangChain, FAISS, Ollama, Groq

## PROFESSIONAL EXPERIENCE

**Vision Tech 360** *Islamabad, Pakistan*

*Full-Stack Developer & ML Engineer* *July 2024 — Present*

- Architected and built full-stack web applications using Next.js frontends and FastAPI backends, delivering production-ready platforms with authentication, role-based access, and real-time data updates.
- Developed Fulfillment OS, a SaaS platform for 3PL warehouse management featuring Shopify OAuth, order fulfillment workflows, inventory tracking, reporting dashboards, and billing — collaborating with remote team members on complex OAuth debugging and shared utility refactoring.
- Built a real-time vehicle monitoring dashboard with React/Next.js consuming live RTSP camera feeds, MongoDB storage, and Redis frame caching, supporting 20+ concurrent video streams.
- Engineered REST APIs handling 500+ requests/second at 150ms average latency, with proper error handling, input validation, and structured logging.
- Implemented email notification systems using Resend, Google OAuth flows via signInWithIdToken, and Stripe payment integration.
- Managed production deployments on DigitalOcean with PM2, Nginx, Cloudflare DNS/SSL, and resolved 521 errors and DNS propagation issues.
- Automated CI/CD pipelines cutting deployment time by 50%, enabling rapid iteration and feature delivery.

**IMAGAGE INC** *Remote*

*Software Development Engineering Intern* *June 2023 — Sep 2023*

- Led the end-to-end development of the "TT Scorer" web application, delivering a responsive, user-friendly scoring platform with optimised performance.
- Designed a responsive front-end interface, optimising page load times by 40% and ensuring cross-device accessibility.
- Optimised database queries achieving a 60% improvement in response time for 100,000+ records.
- Ensured 99.9% uptime through robust error handling, health checks, and proactive monitoring systems.

**AIRLIFT Technologies** *Islamabad, Pakistan*

*IoT/Embedded Systems Engineer Intern* *Feb 2022 — May 2022*

- Innovated an automatic lock system reducing delivery time by 30% across 900+ cabins and developed embedded solutions enhancing delivery efficiency by 45%.
- Engineered energy-efficient firmware achieving 25% power consumption reduction, attaining 98% system reliability through rigorous testing.

## TECHNICAL PROJECTS

**Fulfillment OS — 3PL Warehouse Management SaaS** *2024 — Present*

*Co-Developer*

- Building a full SaaS platform for third-party logistics companies covering order fulfillment, inventory management, shipping workflows, client reporting, and subscription billing.
- Implemented Shopify OAuth integration with shared utility refactoring for reusable connection logic across the platform.
- Designed the backend with FastAPI and MongoDB, featuring role-based access control, webhook processing for real-time order sync, and background task queues.
- Built the frontend in Next.js with responsive dashboards, real-time order status tracking, inventory search/filter, and Resend-powered email notifications.

**Aryeo Real Estate Social Media Generator** *2024*

*Developer*

- Built a full-stack application that scrapes real estate listings using Selenium, generates branded social media posts with PIL image processing, and serves them through a polished Next.js UI.
- Developed a FastAPI backend handling listing ingestion, image template rendering, and asset management with structured API endpoints.
- Implemented automated scraping pipelines with rate limiting, error recovery, and structured data extraction from dynamic web pages.

**FilingHub — UK Business Filing Platform** *2024*

*Developer*

- Deployed and maintained filinghub.co.uk on DigitalOcean, managing PM2 process persistence, Nginx reverse proxy, SSL termination, and Cloudflare DNS configuration.
- Implemented Google OAuth authentication using direct signInWithIdToken approach and configured custom email routing across Hostinger and GoDaddy DNS providers.
- Resolved Cloudflare 521 errors and maintained zero-downtime deployments on Ubuntu servers.

**Multilingual Document Translation Platform** *2024*

*Developer*

- Architected a full-stack offline translation platform with FastAPI backend processing PDF/Excel/Word documents and a Next.js frontend with WebSocket-based real-time progress tracking.
- Implemented multiprocessing optimisation for batch document processing with file upload, job queue management, and downloadable output delivery.
- Designed for airgapped deployment on secure Linux servers with no external network dependency.

**Real-Time Vehicle Monitoring Dashboard** *2024*

*Developer*

- Developed a React/Next.js dashboard consuming live RTSP camera feeds for toll plaza monitoring, with multi-camera grid views, detection overlays, and convoy detection alerts.
- Built the backend with FastAPI, MongoDB for event storage, Redis for frame caching, and MinIO for media assets, supporting 20+ concurrent camera feeds via multiprocessing stream managers.
- Generated automated Excel reports with convoy detection analytics using a background scheduler service.

**Real Estate Intelligence Platform** *2024*

*Developer*

- Engineered a data platform with automated web scraping of 10,000+ daily property listings and an interactive dashboard powered by a text-to-SQL NLP model (95% accuracy) for natural-language data exploration.
- Designed efficient database schemas and indexing strategies for sub-second query response times across large property datasets.

## EDUCATION

**National University of Science and Technology** *Islamabad, Pakistan*

*B.S. in Computer Engineering* *Graduated June 2024*

- Thesis: Blockchain-based Transaction Processor with FPGA Implementation.
- Key Courses: Data Structures & Algorithms, AI, Software Engineering, Database Systems.
- Technical Focus: Full-Stack Development, Cloud Deployment, System Design.