

# ALI TARIQ

## Full Stack Software Engineer

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### PROFESSIONAL SUMMARY

Full Stack Developer with 4+ years of experience building scalable web applications, IoT systems, and real-time data platforms. Expert in microservices architecture, DevOps, cloud deployment, and edge computing. Successfully delivered enterprise projects for government clients (Abu Dhabi Civil Defence, Saudi MOI) and architected Green Fuel Energy IoT platform with proven track record in performance optimization and production deployments.

### SKILLS

**Programming Languages:** JavaScript, TypeScript, Python, C++, SQL

**Frontend Technologies:** React.js, Next.js, Redux Toolkit, HTML5, CSS3, Tailwind CSS, Material-UI

**Backend Frameworks:** Node.js, NestJS, Express.js, Django REST Framework, Flask, FastAPI

**Database Systems:** MongoDB, PostgreSQL, MySQL, Redis, InfluxDB, SQLite

**Cloud & DevOps:** AWS (EC2, S3, RDS, Lambda, CloudWatch), Linux, Docker, Kubernetes, Jenkins CI/CD

**Message Brokers:** Apache Kafka, RabbitMQ, NATS

**Monitoring & Observability:** Grafana, Prometheus, Real-time Dashboards, Time-series Data

**Architecture & Design:** Microservices, REST APIs, GraphQL, System Design, Real-time Systems

**Core Computing Skills:** Data Structures & Algorithms, Object-Oriented Programming, Operating System Concepts, Networking Fundamentals, Continuous Learning

### PROFESSIONAL EXPERIENCE

#### Green Fuel Energy

May 2025 – Present

Lahore, Pakistan

Senior Full Stack Developer

- Designed and architected a comprehensive IoT ecosystem utilizing distributed microservices architecture, including API Gateway, Authentication Service, Device Management Service, Data Management Service, and Database Service, specifically optimized for resource-constrained EC300 edge computing hardware with 1GB RAM and 2.5GB storage limitations.
- Designed real-time power flow analysis system with NATS message streaming, SQLite local database, and automated InfluxDB cloud synchronization for monitoring solar generation, grid exchange, generator output, and load consumption with 2-second data collection intervals.
- Developed hardware-level device management system with web interface for executing shell scripts to configure WiFi networks, Ethernet settings, system date/time, serial port configurations, and other OS-level operations on EC300 edge computing hardware.
- Developed production-ready React frontend applications with real-time data visualization for KPIs and live sensor data using Socket.IO communication, Redux Toolkit state management, and responsive design optimized for embedded hardware deployment with Nginx reverse proxy and Docker containerization.
- Customized Grafana-based monitoring platform (Sphere-Internal) with complete organizational rebranding, enhanced authentication UI, modern border radius design, Montserrat typography, and industrial IoT optimizations for power system visualization, alerting, and historical data analysis.
- Implemented enterprise-grade security with JWT authentication, role-based access control, comprehensive logging systems, automated data cleanup, and production deployment with health monitoring endpoints supporting 1000+ concurrent WebSocket connections.

#### Innovent Tech Solutions

Feb 2024 – May 2025

Lahore, Pakistan

Full Stack Developer

- Led development of secure, scalable applications for Gulf clients including Abu Dhabi Civil Defence and Saudi MOI.
- Built dynamic schema-driven IoT platform (Infini) enabling no-code API generation and real-time data pipelines.
- Delivered asset tracking and chain-of-custody monitoring systems deployed on high-availability private networks.
- Supervised and mentored a team of 4 engineers; reviewed code and managed deployments across cloud environments.
- Collaborated with RAK Ceramics to digitize pallet-level operations using custom dashboards and backend reporting tools.

## **EnlivenAi (Pvt) Ltd**

*Full Stack Developer | Cloud Engineer*

May 2022 – Feb 2024

Bahawalpur, Pakistan

- Built ShotPulse, a real-time shooter analytics app with React.js frontend and Django backend.
- Converted ML models to Flask/Django REST APIs integrated with user dashboards for live AI inference.
- Managed AWS infrastructure: auto-scaling, CI/CD pipelines, monitoring, and load balancing.
- Optimized backend performance by 60% through caching, query optimization, and profiling.
- Achieved 85% test coverage and reduced production issues by 45% via frontend/backend automated testing.

## **Digitalux**

*Backend Developer (Remote)*

Jan 2024 – April 2024

Lahore, Pakistan

- Implemented real-time stock activity tracking using Socket.IO for 5,000+ concurrent users.
- Created complex MongoDB aggregations for millisecond-latency financial analytics.
- Improved ESV CRM query performance by 70% through database indexing and schema redesign.
- Wrote detailed API documentation for smooth frontend/backend collaboration.

## **Enigmatix (Pvt) Ltd**

*MERN Stack Developer*

Dec 2021 – Dec 2022

Bahawalpur, Pakistan

- Developed feature-rich, responsive React.js interfaces with Redux for state management.
- Increased user engagement by 35% by optimizing routing and component reusability.
- Collaborated with UI/UX teams to deliver accessible and pixel-perfect layouts.
- Delivered features consistently with a 95% sprint completion rate in Agile environment.

## **EDUCATION**

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### **The Islamia University of Bahawalpur**

*Bachelor of Science in Computer Science*

GPA: 3.4 / 4.0

## **KEY PROJECTS & IMPLEMENTATIONS**

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### **Infinni IoT Platform | Current Project**

- Engineered a no-code IoT platform enabling dynamic API generation, real-time data ingestion.
- Built dynamic schema and reporting engine allowing non-technical users to define custom data models and generate analytical dashboards without code.
- Designed modular architecture to support flexible onboarding of new sensor types, protocols, and data flows with minimal configuration.

### **KubeArchitect Microservices | [github.com/Alitariq-code/KubeArchitect-Microservices](https://github.com/Alitariq-code/KubeArchitect-Microservices)**

- Designed and developed comprehensive microservices architecture with Kubernetes orchestration for scalable application deployment.
- Created CI/CD pipeline from GitHub to Kubernetes cluster enabling automated testing, building, and deployment processes.

### **Flowtopia Options Trading Platform | [flowtopia.co](https://flowtopia.co)**

- Developing real-time options activity tracking system using Socket.IO to monitor large-scale institutional trading movements.
- Built analytics dashboard helping traders analyze market sentiment and follow "whale" trading patterns with live data updates.

### **Royal Taxi Carshalton | London-based Taxi Management System**

- Created full-stack application for fare tracking and management with location-based pricing calculations for London taxi operations.

### **Abu Dhabi Civil Defence - Asset Tracking | Government Project**

- Developed offline-capable ambulance asset tracking system ensuring emergency equipment readiness and real-time monitoring.
- Implemented secure data handling and compliance features for government healthcare asset management requirements.

### **Saudi MOI - Evidence Tracking | Ministry of Interior Project**

- Built evidence chain-of-custody system with hardware integration for location tracking and secure evidence management.

- Integrated RFID systems to provide real-time location updates and tamper-proof evidence tracking.

#### **Dubai Municipality Smart Parks POC** | *IoT Infrastructure Project*

- Developed IoT management system for multiple parks with sensor data collection using MQTT and other protocols.
- Created centralized dashboard for monitoring and controlling park sensors with remote on/off capabilities through APIs.

#### **RAK Ceramics Reporting System** | *Enterprise Analytics Project*

- Built high-volume transaction reporting system processing thousands of daily transactions with automated file generation.

### **CORE STRENGTHS**

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**Full Stack Expertise:** End-to-end application development from concept to deployment

**Hardware Integration:** Seamless connectivity between physical devices and cloud platforms

**Cloud Architecture:** Scalable, fault-tolerant systems on AWS infrastructure

**Team Leadership:** Mentoring and guiding development teams to success

**Rapid Learning:** Quick adaptation to new technologies and frameworks

**Client Focus:** Government and enterprise-level solution delivery

**Performance Optimization:** Consistently improving system efficiency and user experience