Mustafa Shaikh

+92-303-000-4417 | mustafajahangirshaikh@gmail.com | linkedin.com/in/shaikhmustafa | github.com/mustafa-shaikh
Islamabad, Pakistan (Open to Relocate)

PROFESSIONAL SUMMARY

Product-minded Senior Software Engineer building scalable, mission-critical systems for FinTech and B2B Marketplaces. Polyglot backend engineer (Java/Spring Boot, Node.js, Go) with deep experience in microservices, event-driven architecture, and domain-driven design, optimizing system performance, reducing technical debt, and driving architectural decisions aligned with business growth. Seeking to apply polyglot, systems-level expertise to high-stakes technical problems in growing markets.

SKILLS

Languages: JavaScript, TypeScript, Java, Go, Python, Bash, Dart

Backend: Node.js, NestJS, Spring Boot, Express.js, Django, Flask, Kafka, BullMQ, Redis (incl. Pub/Sub)

Frontend: React, Angular, Flutter, React Native, Material-UI

Databases: PostgreSQL, DynamoDB, MySQL, MongoDB, Amazon RDS

Cloud & DevOps: AWS (SQS, Lambda, IoT Core, ElastiCache, EC2, S3), NATS, Docker, Grafana, Prometheus, Loki, Serverless Architecture, SSE/WebSockets

EXPERIENCE

AIO (All-in-One Platform for Restaurants) — Islamabad, Pakistan
Senior Backend Engineer — Nov 2025 – Present

- Designed and shipped at-least-once real-time order delivery to kitchen displays (SSE) using BullMQ persistence, Redis Pub/Sub cross-instance routing, and device ACK; 6-hour auto-recovery via exponential-backoff retry (max 10). Runs across 500 production devices; load-tested 10K concurrent connections.
- Unified a fragmented device-status system (4 independent stores, conflicting liveness thresholds) into a single-source-of-truth heartbeat pipeline (AWS IoT Core $\rightarrow$ SQS $\rightarrow$ Redis, with a DynamoDB DR snapshot), covering previously untracked device types.
- Rewrote the Giftcard service end-to-end in 10 days (POS sell/transfer/redeem + reporting), applying SOLID principles and design patterns, fixing a broken ERD, and aligning 3 siloed teams.
- Corrected financial-accuracy defects in POS payments (zero-tip card payments, HouseDrawer closing-balance reconciliation, and payment rounding tolerance reduced from 3 to 1 cent), restoring accurate closing calculations and audit logs.
- Hardened SQS/DynamoDB event infrastructure using bulk operations with chunking and transaction reversibility, TTL-based cleanup, and elimination of N+1 queries, reducing DB calls and stabilizing master-slave write consistency under peak load.

Spursol (Enterprise SaaS Platform) — Karachi, Pakistan
Software Engineer — Nov 2024 – Jul 2025

- Designed and implemented an enterprise-grade component library (incl. TinyMCE rich-text editor) for a customer support platform, improving UI consistency and cutting development time across the product.
- Spearheaded a complete UI/UX transformation across the application interface pre-launch, delivering zero-downtime deployment and receiving stakeholder commendation for the enhanced user experience.
- Mentored 2 junior engineers on clean code practices and architectural patterns, improving maintainability across core modules.

Small World Financial Services (Global Money Transfer Platform) — Pakistan (Hybrid)
Front End Developer — Aug 2023 – Jun 2024

- Contributed to migrating a monolithic money-transfer platform into microservices and micro-frontends, architecting a centralized i18n translation service (multiple language variants, faster regional time-to-market).
- Conducted comprehensive code reviews across an 8-member development team, establishing a best-practices framework that raised code-quality standards.
- Drove ongoing enhancements to the money-transfer platform while maintaining codebase integrity across cross-functional teams.

Dastgyr Technologies (B2B Marketplace) — Karachi, Pakistan
Full Stack Engineer — Jun 2022 – Jul 2023

- Contributed to a payment and dispute management service that streamlined dispute resolution processes.
- Implemented a serverless masking feature in the in-app chat system that concealed sensitive contact information, reducing direct seller-retailer conflicts and improving platform trust.
- Created an in-house surveys portal similar to Google Forms with nested questioning logic and gamification features, strengthening business-intelligence data collection.

ADDITIONAL EXPERIENCE

- **Helpt (Buffalo, USA)**, Back End Developer Intern, Remote (May 2021 – Jun 2021): built a vendor onboarding portal (React, PostgreSQL, Node.js).
- **Utopia Tech Pty Ltd (Queensland, Australia)**, Software Developer Intern, Remote (Jul 2021 – Sep 2021): developed e-commerce features (Node.js, React, PostgreSQL).
- **Y Combinator**, Apprenticeship, Remote (Jan 2022 – Feb 2022): completed an 8-week program on product engineering fundamentals.
- **Room Sharing Platform** (React Native, Node.js, PostgreSQL): designed optimized schemas and backend APIs; deployed on Heroku. GitHub: mustafa-shaikh/myroom.
- **Case Management Suite** (React, React Native, Node.js, MongoDB, GraphQL): led an immigration law-firm case platform; built a GraphQL API layer with API integrations (Dropbox via Octatream, Monday.com) serving case data across web and mobile.

PROJECTS

NoreOS · Retail Management Platform (Founder & Solo Architect)

- Founded and solo-architected NoreOS, an offline-first retail POS operating system built for unreliable connectivity, engineered so a store never loses a transaction even when the network drops.
- Designed strict schema-per-tenant isolation so each retail business's data is physically separated, a foundational reliability guarantee.
- Created one core with a vertical-aware engine, full i18n (10 script-correct locales) and l10n, multi-currency, and a11y-conscious interfaces for markets global POS platforms ignore.
- Backed the no-data-loss guarantee with 287 Flutter + 248 React tests and 396 end-to-end API flows under an 80% coverage gate.
- Orchestrated the entire build with agentic AI engineering, using code knowledge graphs, sub-agents, and autonomous execution loops with checkpointing.
- Live demo: noreos.com

AI-Powered Healthcare Platform (React, Node.js, Flask, Data Science)

- Developed a symptom-based disease diagnosis application with a 2-member team, supporting model training and deployment.
- Employed a Decision Tree model (Google Colab, Kaggle dataset) to map symptoms to doctor suggestions, including model training and deployment.
- Used OCR to read and digitize old lab reports and prescriptions for intake into the system.
- Crafted a user-friendly interface with QR-code check-in for hospitals and a real-time analytics dashboard; recognized for innovation and awarded an A+ grade.
- GitHub: github.com/mustafa-shaikh/fyp-symptoms-model

CERTIFICATIONS

- Microservices: Design Patterns
- Software Architecture: Domain-Driven Design
- Building Scalable Microservices with TypeScript and Node.js
- Y Combinator Startup School, Curriculum Complete (26/26 modules)

EDUCATION

FAST National University — Karachi, Pakistan
Bachelor of Science in Computer Science — Aug 2018 – Jun 2022

- Relevant Courses: OOP, DBMS, Data Structures, Operating Systems, Design and Analysis of Algorithms, Human Computer Interaction, Artificial Intelligence, Data Science, Cloud Computing, Blockchain.