

# Muhammad Talal Jamil

Senior Software Engineer — Full Stack, Platform & Cloud Engineering

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## Professional Summary

Senior Software Engineer with over 4 years of experience architecting and scaling consumer platforms, enterprise CMS ecosystems, and autonomous IoT pipelines. Proven track record of end-to-end product ownership—from designing backend microservices and cloud infrastructure to delivering high-performance frontend applications. Adept at driving system optimizations, processing high-volume telemetry (1M+ daily events), and deploying AI-driven orchestration tools. Passionate about modern software standards, CI/CD automation, and leading cross-functional engineering initiatives in highly competitive environments.

## Core Competencies & Technologies

**Languages:** TypeScript, JavaScript, Python, Rust, SQL

**Frontend:** React, Next.js, Vue 3, Nuxt.js, Tailwind CSS, shadcn/ui, Material UI, Framer Motion

**Backend & APIs:** Node.js, NestJS, Express, FastAPI, GraphQL, REST, tRPC, WebSockets, MQTT

**Databases:** PostgreSQL, MySQL 8+, MongoDB, Redis, Prisma, Supabase, Sequelize

**Cloud, DevOps & Architecture:** AWS (Lambda, RDS, SQS, SNS, Cognito), GCP, Docker, OpenShift, GitHub Actions, GitLab CI/CD, Microservices, Event-Driven Architecture

**Testing & Tools:** Jest, Selenium, Puppeteer, E2E Testing, Minio (S3), MediaRecorder API

## Professional Experience

**Jazz** Islamabad, PK  
Senior Software Engineer Sep 2025 – Present

- **ROX Platform Leadership:** Spearheaded engineering for a high-traffic consumer ecosystem managing event ticketing, tournaments, and academy registrations. Architected a fraud-resilient QR ticket validation system featuring duplicate scan detection and real-time audit trails for large-scale live events.
- **Simosa CMS Architecture:** Designed and built the Simosa CMS on secure on-premise infrastructure, introducing version-controlled publishing, push-driven content synchronization, and robust role-based access controls (RBAC).
- **FikrFree Ecosystem:** Led the full-stack delivery of the FikrFree web platform, ensuring flawless functional and UI/UX parity with native mobile applications while upholding strict performance and scalability standards.
- **Data & Analytics:** Engineered interactive analytics dashboards that surface live telemetry on ticket sales and operational performance, directly empowering business stakeholders with actionable insights.
- **Fintech Integrations:** Designed high-availability payment processing pipelines seamlessly integrating JazzCash, Easypaisa, and major card networks across multiple production environments.

**Zigron** Islamabad, PK  
Senior Full Stack Software Engineer Mar 2024 – Sep 2025

- **IoT Platform Scaling:** Scaled TerraSmart PeakYield, an enterprise IoT intelligence platform processing over 1M+ sensor events daily for solar energy operations.
- **Database Migration & Optimization:** Led the strategic migration of machine learning and anomaly detection workloads from Elasticsearch to PostgreSQL, accelerating query performance by ~30% and cutting infrastructure costs by ~50%.
- **System Reliability:** Diagnosed and resolved critical data processing bottlenecks, boosting throughput by ~20% and driving platform enhancements that reduced user-reported defects by ~40% over two quarters.
- **Workflow Automation:** Designed and implemented an automated release management platform to synchronize firmware and application deployments, entirely eliminating manual coordination overhead.

**Cowlar Design Studio** Islamabad, PK  
Full Stack Software Engineer Jul 2023 – Mar 2024

- **AI Orchestration:** Architected and delivered “Thanos”, a Kubernetes-deployed, human-in-the-loop AI orchestration engine that accelerated machine learning deployment timelines by 40%.
- **Internal Tooling Innovation:** Developed “CowLoom”, an internal video productivity platform leveraging MediaRecorder APIs, which reduced documentation friction by 90% and eliminated reliance on third-party software.
- **Digital Transformation:** Owned the frontend architecture for an enterprise device management platform, facilitating real-time telemetry and orchestration via MQTT and WebSockets.

- **Component Ecosystems:** Established a highly reusable Vue component library and CRM foundation, reducing cross-project onboarding and feature delivery timelines by ~30%.

## ScaleMath

London, UK (Remote)

### Frontend Engineer

Oct 2022 – May 2023

- Shipped high-performance features for a global B2B SaaS platform, heavily focusing on rendering optimization and cross-platform UX consistency.
- Engineered an interactive Agile tracking board with advanced sorting, filtering, and drag-and-drop capabilities utilizing React, Redux Toolkit, and GraphQL.

## Upwork

Remote

### Full Stack Software Engineer (Freelance)

Jun 2021 – Jul 2023

- Architected and deployed 10+ scalable full-stack applications (SaaS, fintech, e-commerce) for international clients, driving technical discovery, system design, and CI/CD deployment.
- Maintained a 100% 5-star client satisfaction rating through reliable delivery and long-term product support.

## AlphaSquad

Islamabad, PK

### Frontend Engineer

Summer 2022

- Refactored the frontend architecture for design.inc (a high-fidelity design marketplace), eliminating critical security vulnerabilities and optimizing render performance for real-time collaboration.

## Selected Projects

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### ROX - Ticketing & Analytics Dashboard | [Live](#)

- End-to-end architecture of a high-traffic ticketing ecosystem with fraud-proof QR validation and real-time operational dashboards.  
*Tech: React, Next.js, NestJS, MySQL 8+, TypeScript, Prisma, REST APIs, JazzCash, Easypaisa, Card Payments*

### Simosa CMS

- A distinct, custom-built, versioned CMS powering Jazz's mobile applications, featuring live UI reordering, instant data propagation via push notifications, and centralized Minio (S3) media hosting.  
*Tech: Next.js, NestJS, TypeScript, MySQL 8+, Prisma, Minio (S3), Push Notifications, RBAC*

### FikrFree CMS & Web App | [Live](#)

- Engineered the core centralized content and data backbone with secure on-premise deployment and Minio-based media infrastructure to power cross-platform insurance services.
- Delivered a standalone, consumer-facing frontend handling complete insurance policy management, subscription control, and claims filing, perfectly mirroring the native mobile experience.  
*Tech: React, Next.js, NestJS, TypeScript, MySQL 8+, Prisma, Minio (S3), Tailwind CSS, REST APIs*

### TerraSmart PeakYield

- Optimized a high-scale enterprise IoT intelligence platform processing over 1M daily telemetry sensor events for solar energy operations. Migrated heavy data workloads from ElasticSearch to PostgreSQL to optimize system performance.  
*Tech: PostgreSQL, ElasticSearch, Node.js, Python, System Optimization, IoT Pipelines*

## Education

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### NUST - National University of Sciences & Technology

Islamabad, PK

Bachelor of Engineering, Software Engineering    GPA: 3.21 / 4.0

2019 – 2023

## Certifications

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- **Google Cloud Platform (GCP) Credentials** Google Cloud (Mar 2026)  
*Completed 12 professional skill badges specializing in Core Infrastructure, Automation, Cloud Architecture, Networking, Security, Serverless Applications, and Cloud Run Containerization.*
- **Artificial Intelligence & the Peak of Heightened Expectations** Jazz (Oct 2025)
- **Generative AI – From Idea to Impact** Jazz (Nov 2025)
- **National Security Training** Lincoln Corners Pakistan (2025)
- **Falcon Hackathon Certificate** lablab.ai (Aug 2024)
- **Meta Frontend Developer Specialization** Coursera / Meta (Feb 2023)
- **Scrum Fundamentals Certified (SFC)** Vabro.ai / VMEdU (Feb 2021)