

Muhammad Rehman

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Professional Summary

A highly experienced and results-driven **Lead Software Engineer** and **Founder of TechNest Services Ltd**, with **over a decade of extensive experience** in architecting, developing, and deploying complex, scalable software solutions across the full stack. Proficient in **Python-based microservices, advanced AI/LLM, and machine learning models**, demonstrated through the successful launch of **WorkNest Hub**, an AI-powered job search platform.

Possessing deep expertise in **cloud-native development (fly.io, AWS, Azure, Google Cloud Platform)** and **DevOps practices (CI/CD, Kubernetes, Docker, Terraform, Ansible)**, with a proven track record of optimizing infrastructure for resilience, security, and cost-efficiency. Highly skilled in a diverse range of programming languages and frameworks including **.NET, Python, Dart, Java, React.js, Next.js, TypeScript, Flutter, React Native, Xamarin, and MAUI**.

A committed leader adept at guiding dynamic engineering teams, defining technical roadmaps, and fostering collaborative environments to deliver high-impact, performant applications. Actively seeking challenging Lead Software Engineer roles to leverage a unique blend of technical mastery, leadership, and innovative problem-solving to drive significant business value.

Professional Experience

Founder & Lead Software Engineer | TechNest Services Ltd (WorkNest Hub) | Dec 2024 – Present

- Founded and launched **WorkNest Hub**, an **AI-powered job search platform** utilizing advanced **LLMs and machine learning models** for intelligent job-to-CV matching.
- Personally designed, developed, and launched the entire platform, encompassing **frontend (Next.js, TypeScript), backend microservices (Python)**, and robust infrastructure automation.
- Built and managed **scalable data processing pipelines** for comprehensive CV analysis and accurate job description parsing.
- Leveraged **fly.io** for cloud infrastructure, ensuring high availability and optimal performance.
- Managed the full product lifecycle from concept to successful beta release, showcasing entrepreneurial leadership, full-stack development, and meticulous project management.
- Continuously iterates on the platform based on user feedback, focusing on refining AI models and expanding features.
- *Explore WorkNest Hub:* <https://www.worknesthub.com>

Contract Senior Flutter Developer | RAVEN PRO | January 2025 – July 2025

- Led **full-stack Flutter development** for a comprehensive instructor-customer booking platform, integrating advanced real-time communication features.
- Architected and implemented a **real-time chat system using Supabase WebSocket subscriptions**, enabling instant instructor-to-instructor messaging with live status updates.
- Built highly responsive Flutter UI components with a custom design system, focusing on intricate layouts and enhanced user experience (dynamic bottom sheets, modal interfaces).
- Developed a sophisticated **multi-instructor booking system** with dynamic offer management, improving flexibility and resource allocation.
- Integrated backend services with **Supabase** for real-time database operations, user authentication, and complex SQL queries.
- Managed state and architecture efficiently using **GetX** for reactive state management, dependency injection, and robust error handling.
- Implemented critical platform features including multi-language support, Firebase for analytics/messaging, **Stripe for secure payment processing**, and Apple Wallet integration.
- Successfully integrated **Branch.io deep linking** for seamless in-app navigation, enhancing user journeys.

Senior Software Engineer | TWYN | December 2022 – December 2024

- Led a dynamic team of developers, driving the technical roadmap and ensuring alignment with the CTO's vision and broader company goals.
- **Architected and developed Python-based microservices** for core backend functionalities, consistently optimizing for scalability and performance.
- Integrated and deployed **LLM and machine learning models** into applications, significantly enhancing user interaction and data processing capabilities.
- Conducted rigorous quality control, including extensive integration testing and thorough code reviews, collaborating closely with cross-functional teams.
- Managed and optimized **DevOps automations and CI/CD pipelines** to streamline development workflows and meet evolving project needs.
- Spearheaded the build, testing, and secure signing of Android and iOS packages for Flutter mobile apps, facilitating distribution via Microsoft App Centre.
- Oversaw the entire release process for Flutter mobile apps, from stakeholder coordination to successful store deployments.
- Developed and maintained intricate route information parsing and restoration functionality for critical mobile applications, ensuring reliable navigation.
- Utilized debugging and logging techniques to closely monitor and continuously improve system processes.

Contract Mobile Developer | Surefire Software | July 2024 – August 2024

- Successfully revamped and published an Android Kotlin App to the Google Play Store, increasing app visibility and user accessibility.

- Addressed and resolved a critical issue with location services, significantly improving the accuracy and reliability of the engineer tracking feature.
- Fixed issues within the postcode search functionality, ensuring accurate results and a smoother user experience.
- Integrated push notification functionality to alert users of diary updates, enhancing timely communication and user engagement.
- Resolved UI issues in dark mode, ensuring consistent readability and an improved user interface.

Full Stack Software Engineer | TWYN | November 2021 – December 2022

- Managed, maintained, and added new features to Flutter mobile applications.
- Developed and managed a front-end CRM system using **ReactJS** for content management in mobile apps.
- Collaborated with a **C# Backend-for-Frontend (BFF)** system connected to a **Cosmos DB backend via GraphQL APIs**.
- Utilized **Azure DevOps** for CI/CD, managing builds and deployments across all applications.
- Managed DevOps pipelines for BFF, CMS, and backend APIs, including deployment to **Azure AKS clusters** (test, staging, production).
- Integrated mobile apps with third-party analytics systems such as AppsFlyer and Mixpanel.
- Troubleshooted and resolved issues in applications deployed on **Azure AKS clusters using Kubernetes kubectl**.
- Connected BFF with Storyblok for configuration management in specific applications.

Software Engineer | Sainsbury's | January 2020 – October 2021

- Led the design and development of a critical **Brexit Certificate management system** for transporting goods through Northern Ireland ports.
- Designed and implemented large-scale, high-performance services using **.Net Standards, React JS, SQL, MongoDB, Kubernetes, and Docker**.
- Spearheaded the adoption of **Public Cloud technologies (AWS, Azure, Google Cloud Platform)**, modernizing infrastructure and achieving **annual cost savings of over £500,000**.
- Provided technical leadership and support to development teams, ensuring adherence to best practices and high-quality deliverables.
- Implemented a centralized identity service for the logistics platform, integrated with various systems and secured with NFC card login for 2FA.
- Developed quality control activities including integration testing and code reviews.

Software and Database Developer | NELFT NHS Foundation Trust | May 2018 – January 2020

- Developed and maintained mobile apps using **Xamarin**, including the RoomBooking mobile app (Google Play Store and App Store).
- Created and maintained web applications for room and desk booking, and the NELFT HR portal.
- Developed a location service using Xamarin.
- Implemented a comprehensive framework for maintaining mobile application connectivity with the cloud.
- Integrated mobile apps with **Google Firebase** for serverless storage and notifications.
- Developed quality control activities, including integration testing and code reviews.
- Managed **GitLab projects** and integrated with **SonarQube** for continuous development and code quality monitoring.
- Installed, configured, and managed GitLab servers.

Developer (Software, Database and Mobile APPs) | NELFT NHS Foundation Trust | January 2018 – May 2018

- Developed and maintained the MindFresh mobile app and web app.
- Designed and prepared web services using **Visual Studio and C#**.
- Designed and developed web solutions with **MVC**.
- Developed mobile apps with **Xamarin and Xamarin Forms**.
- Integrated chat across web and mobile apps, and developed a custom chat solution with **SignalR**.

Cloud Product Engineer (DevOps) | Interoute | September 2017 – May 2018

- Led **DevOps implementation** for a Public Cloud Solution Provider, prioritizing code-driven automation.
- Automated cloud infrastructure setup and configuration using **Ansible, Jenkins, and Puppet**.
- Innovated automated processes for updating public templates and applying OS-level updates using **Python, Go, and Django (CloudStack API)**, with a UI for control and monitoring.
- Engineered **PowerShell scripts** for **CIS Hardening (Windows Server 2016, IIS Server)**.
- Developed PowerShell scripts for automating **Nagios Gem monitoring Server** installation and configuration on Windows (Cygwin).
- Created, updated, and modified Nagios monitoring plugins (C#, Java, Python, Shell, Bash).

Technical Specialist | Interoute | June 2016 – September 2017

- Provided technical guidance on platform utilization and assisted customers with environment build and configuration.
- Troubleshoot technical issues and assisted with data/service migration into VDC platform.
- Provided structured training programs and tailored support to customers.

- Contributed to product/service improvements and developed scripting to automate everyday tasks.
- Worked on network implementation and PE router configuration.
- Provided on-call support for customer-specific outages and planned works.

Technical Support Engineer | SkypeEX | September 2015 – May 2016 (Freelance)

- Provided technical support for software solutions, including SIP and Skype integration tools.

Freelance IT Consultant, Technical Writer, Developer and IT Support | January 2014 – March 2015

- Developed a software solution for SkypeEX integrating SIP and Skype functionalities using Java.
- Contributed to "Lync Server 2013 Book" (Technical Writer).
- Designed and maintained websites and mobile apps for various clients (car rental, food delivery, general retail).

Professional Services Consultant | C Square Consulting (Pvt) Limited | June 2012 – December 2013

- Led the implementation of contact center solutions for high-profile clients (Korek Telecom Iraq, KASB Bank Pakistan, Gulf International Bank Bahrain, Agility Pakistan).
- Led virtualization projects using **VMware vCenter, VMware Horizon, Citrix XenServer, and Citrix XenDesktop**.
- Provided 24/7 technical support to Contact Center customers.
- Managed vendors, coordinated change requests, and conducted system training.
- Assisted in pre-sales design of complex solutions and strengthened IT infrastructure.
- Deployed and implemented customized IVR solutions, integrating with backend payment, billing, banking, and telco recharge systems.
- Designed and deployed custom call routing for contact centers.

Assistant Network Administrator | Virtual University of Pakistan | October 2010 – May 2012

- Managed and maintained network infrastructure.

IT Support Engineer | Base Camp Data Solution | April 2010 – October 2010

- Provided IT support for internal systems.

IT Engineer | Arian Solution | August 2009 – March 2010

- Managed internal network and supported international clients.

Key Achievements

- **Founded and successfully launched WorkNest Hub**, an **AI-powered job search platform**, showcasing full-stack development, AI/ML integration, and entrepreneurial leadership.
- Spearheaded the creation, testing, and distribution of **Flutter mobile apps**, ensuring seamless deployment via Microsoft App Centre.
- **Led the migration to Public Cloud technologies (AWS, Azure, Google Cloud Platform)** across multiple organizations, resulting in **annual cost savings of over £500,000**.
- Led the implementation of **DevOps processes**, driving a **20% reduction in development time** and significantly enhancing team efficiency.
- Developed and deployed mobile apps using **Xamarin and Xamarin Forms**, achieving a **combined download count exceeding 10 million**.
- Designed and implemented **automated processes for updating templates**, leading to **annual savings of £100,000** and streamlining operations.
- Ensured **99% uptime for customer-facing applications** by implementing robust monitoring solutions.
- Successfully managed and maintained centralized identity services, ensuring data security and compliance.
- Designed and prepared web services using Visual Studio and C#, utilized by over 1 million users.
- Received multiple **Microsoft (AZ-900, AZ-400, etc.) and VMware (VCP5-DCV, VCA-Cloud) certifications**, demonstrating continuous professional development and expertise.
- 2014 UK Microsoft Imagine Cup Competition Finalist.

Technical Skills

- **Programming Languages:** Python (Microservices, LLM/ML Integration, Data Pipelines), Dart, Java, C#, Go, Swift, Kotlin, Shell, Bash, PowerShell, .NET (C#, VB.Net), JavaScript, TypeScript, jQuery, HTML5, CSS3
- **AI/Machine Learning:** LLMs (Large Language Models), Machine Learning Models
- **Cloud Platforms:** fly.io, AWS, Azure, Google Cloud Platform (GCP), Firebase, Supabase, CloudStack
- **DevOps & CI/CD:** Terraform (Infrastructure as Code), Ansible, Jenkins, Puppet, Azure DevOps, GitLab, SonarQube, Kubernetes, Docker, CI/CD Pipelines
- **Databases:** SQL Server, MySQL, Oracle, PostgreSQL, CosmosDB, MongoDB, AstraDB
- **Web Development:** React.js, Next.js, GraphQL, REST APIs, Web API, MVC, IIS
- **Mobile Development:** Flutter, React Native, Xamarin, Xamarin Forms, MAUI, Android Studio, Xcode
- **Operating Systems:** Android, iOS, Linux, Windows Server (Active Directory, DHCP, NLB)
- **Networking:** Cisco IOS, Routes and Switches (RIP v1-v2, IGRP, EIGRP, OSPF, BGP), CUCM, CUCME, Unity, Unity Express, CUPS, DHCP, VLANs, VPN, ACL, TCP/IPv4-IPv6, IP Subnetting, NAT, Dynamic NAT

- **Virtualization:** VMware (ESXi, VCenter, VMotion, VSwitch, VApp, VStorage, DRS, Horizon), Citrix (XenDesktop, XenApp, XenServer)
- **Security:** CIS Hardening, Nagios, Cryptography (Authentication, Data Encryption)
- **Middleware/Integrations:** WCF, REST, GraphQL, gRPC, SignalR, SIP, Skype, ZoomInt GQM, Branch.io, Stripe, Veriff, Twilio, AppsFlyer, Mixpanel, FusionAuth
- **Development Tools:** Visual Studio, Visual Studio Code, Android Studio, Xcode, Eclipse, IntelliJ IDEA, Kubernetes kubectl
- **Agile Methodologies:** Scrum, Kanban

Certifications

- **Microsoft:** AZ-900, AZ-400, 409, 417, 336, 337, 659, 638, 646, 643, 642, 640, 680, Microsoft® Certified Solutions Expert - Communication
 - *View Microsoft Certification Transcript:*
<https://learn.microsoft.com/en-us/users/muhammadrehman-4426/transcript/v0x5tn19nmll41v>
- **VMware:** VCP5-DCV (VMware Certified Professional - Data Centre Virtualization), VCA-Cloud
- **Cisco:** CCNA (Routing and Switching), CCNA (Voice)
- **Genesys:** Genesys Certified Professional 8 System Consultant - Outbound Voice
- AWS Concepts, AWS Essentials

Education

- **Master's degree, Cloud Computing** | University of Leicester, England | 2014 – 2016
- **Bachelor of Science (BSc), Computer Systems Networking and Telecommunications** | University of Sindh, Pakistan | 2006 – 2009

Honors & Awards

- 2014 UK Microsoft Imagine Cup Competition Finalist

Soft Skills

- **Clear Communication:** Articulate communicator adept at conveying complex technical concepts to diverse audiences through written and verbal channels, particularly for stakeholder updates.
- **Strategic Problem-Solving:** Skilled in analyzing intricate challenges and devising innovative solutions by leveraging technical expertise and critical thinking.
- **Collaborative Teamwork:** Proven ability to foster collaborative environments, enabling team members to contribute effectively and achieve shared goals.
- **Inspiring Leadership:** Experienced in motivating and mentoring team members to drive performance and professional growth.
- Adaptability, Creative Thinking, Critical Analysis, Attention to Detail, Effective Time Management, Self-Motivation, Continuous Learning, Customer Focus.