MOAYAD RAYYAN

VP of Engineering | Head of Engineering & Technology | CTO

Real-time AI platforms · Hybrid cloud and on-premise infrastructure · Financial-grade reliability

Dubai, UAE (UAE Golden Visa holder) · +971 50 892 0225 · moayad_rayyan@outlook.com · linkedin.com/in/moayadrayyan · moayadrayyan.com

PROFESSIONAL SUMMARY

Engineering executive with 13+ years building and operating high-performance platforms, the last six at VP and Head level. Co-founder and VP of Engineering & Technology at Own Experiences, where I took a multi-modal emotional AI from scientific theory to a production platform deployed with Keolis-MHI and the RTA on Dubai Tram, at Neom and at Casa Batlló, and scaled it 25-fold. Head of Engineering & Technology at Kifiya Financial Technology, accountable for the infrastructure and DevOps of 50+ financial platforms running inside seven partner banks, engaged to build the engineering foundation for expansion across Africa; cut production deployment time from three days to four hours. Led teams of up to 18 engineers across three continents. Co-author of a 2026 empirical paper on causal AI.

KEY ACHIEVEMENTS

- Own infrastructure and DevOps for 50+ financial platforms (conventional and Islamic finance) deployed across seven partner banks' data centres.
- Designed delivery flows and quality gates that cut production deployment time from a minimum of three days to four hours.
- Scaled a real-time AI platform 25x in two months (20 to 500+ RPS), later sustaining 1,200+ RPS at 1–2 s latency, while cutting hosting cost 30%.
- Took an AI product from theory on paper to €1.5M annual revenue (2025); built two engineering departments from zero.
- Reduced monthly AWS spend by ~35% through FinOps; delivered 36 projects and 5 white-label products for Qatar Airways, British Airways, Kuwait Airways and Air Canada.

PROFESSIONAL EXPERIENCE

Head of Engineering & Technology (International Consultant)

Jan 2026 – Present

Kifiya Financial Technology, *Addis Ababa*, *Ethiopia* · Remote from Dubai with regular travel · Reports to Group CTO

Kifiya builds AI-driven credit decisioning, lending, payments and insurance platforms used by partner banks across Ethiopia. Engaged to bring the engineering and infrastructure foundation up to the standard needed to scale services beyond Ethiopia and across Africa. Accountable for the infrastructure and DevOps of 50+ financial platforms (conventional and Islamic/IFB), hybrid cloud, SRE and data-centre operations, with platforms deployed inside seven banks' data centres. Scope: multi-year engineering and infrastructure roadmap; SLO and error-budget governance; DR architecture to defined RTO/RPO; DORA-metric delivery governance with DevSecOps and policy-as-code; AWS and hybrid network architecture; FinOps; audit readiness, privileged-access governance and patch compliance; reliability and risk reporting to executive leadership.

- Designed the delivery flows and policies that cut production deployment time from three days to four hours while enforcing quality gates: Deployment Readiness criteria, automated checks in CI/CD standardised across product lines, environments provisioned as code, and a single request path for deployment and support with service-level commitments.
- Migrated legacy platforms to containerised AWS ECS Fargate provisioned entirely with Terraform; built unified Azure DevOps multi-stage pipelines with rolling updates, connection draining, automated Ansible rollbacks and audited break-glass hotfix workflows.
- Centralised all engineering access to partner-bank production environments through one controlled gateway with authorisation, logging and time-bound credentials; removed hardcoded credentials with an RBAC secrets vault.
- Designed the high-availability architecture for the platforms and the multi-bank network connecting them; set the method for zero-downtime data-centre hardware upgrades, executed with no loss of data or service.
- Designed an on-premise, sovereign NVIDIA L40S GPU environment and high-availability MySQL read-replica bridges so AI credit-scoring models train and serve without affecting production database performance.
- Reduced monthly AWS spend by ~35% (right-sizing, Compute Savings Plans); stood up a central SRE observability command centre on SigNoz with distributed tracing and anomaly detection.
- Built and lead a department of nine senior engineers and directors across cloud, DevOps and the company data centre; replaced single-person ownership with area squads to secure business continuity.

Co-Founder & VP of Engineering & Technology Jan 2020 – Dec 2025

Own Experiences SL, *Barcelona*, *Spain* · Remote from Dubai · Co-founder and shareholder to date

Deep-tech company building real-time emotional AI. Joined when the product was a scientific theory on paper; architected it from the first line of code and ran it in production. Sentio (platform-as-a-service: sessions, audio, vectorisation, routing, no-code portal, public APIs) and EDAA (causal engine learning the effect of an action on a person from live interactions, inside a hardware-encrypted enclave).

- Scaled the platform from ~20 RPS with a high error rate (Nov 2024) to 500+ RPS with stable error rates (Jan 2025), a 25x gain in two months, then to 1,200+ RPS sustained, by redesigning the data architecture for real-time processing, rebuilding the MLOps pipeline and cutting per-inference compute through algorithmic and FLOPs reduction; hosting cost down 30%.
- Led a three-year product build and two years of commercial scaling to €1.5M annual revenue in 2025; co-authored the empirical and technical white papers used with clients and investors.
- Dubai Tram (2022): three-month proof of validation with Keolis-MHI and the RTA across six trams and 29 drivers; validation report quantified a 75% reduction in human-error incidents with zero signals passed at danger. Reported by Khaleej Times as the first system of its kind.
- Neom (via Nagarro): simulation of 10,000 virtual humans at 500+ RPS for pre-construction design evaluation. Casa Batlló, Barcelona: visitor-state monitoring for a mobile virtual assistant.
- Designed and enforced a Zero Trust security architecture across a remote, multi-country team with end-to-end encryption of all captured data, protecting proprietary models and user privacy.
- Built the engineering department from zero to eight (AI/ML, full-stack, QA, DevOps); set department OKRs; designed the mentorship track that moved senior engineers into tech-lead roles.

Development Lead Engineer Mar 2021 – Jan 2025

Neutral Digital, *United Kingdom* · Remote consultant from Dubai, concurrent with Own Experiences

UK design and technology studio in aviation and real estate. Led development, infrastructure and system architecture.

- Delivered 36 Unity and web projects and turned five into white-label products for Qatar Airways, Kuwait Airways, British Airways and Air Canada, including in-flight entertainment applications running reliably across seatback hardware of differing age and capability.
- Cabinly: 360-degree cabin and seat exploration product architected so any cabin configuration loads as data; licensed to other airlines. Delivered a Qatar Airways seatback game for the 2022 World Cup on a fixed date.
- Real-estate sales platform with 3D/VR walkthroughs of unbuilt properties, integrated with showroom hardware (lights, blinds, sound) from one interface.
- Moved the studio from manual deployments to fully automated delivery: version-controlled infrastructure, automated provisioning, release pipelines for Unity builds and web platforms.

Senior Full Stack Developer & Team Leader Jul 2017 – Dec 2019

Ministry of Human Resources and Emiratisation (MOHRE), *Dubai*, *UAE*

- Led six senior engineers migrating legacy VB6 and ASP Classic systems to .NET Core and Angular without service interruption; received the Ministry's Best Leader Award.
- Delivered mission-critical B2C and G2G applications used by millions; built shared services reused across ministry teams (JWT authorisation server, SMS gateway, file storage) and APIs consumed by other government entities.
- Optimised high-volume reporting over SQL Server and Oracle schemas of 100+ joined tables without added server load.

Senior Full Stack Developer & Team Leader May 2015 – Jul 2017

Keytech Security International, *Dubai*, *UAE*

- Built an automatic number-plate recognition (ANPR) system with real-time image processing across 20+ camera channels at under two seconds latency; security platform with biometric and Emirates ID integration, real-time local-to-cloud sync and subscription licensing.
- Grew the engineering team to nine (seven developers, two QA) with code review, regression testing and release workflows.

Software Engineer Jun 2014 – May 2015

Ticsom, *Dubai*, *UAE*

- Developed an HL7-integrated electronic medical records system in C#, a dental-clinic platform, ERP modules and an in-house CRM (PHP, MySQL).

Early career: Web Developer, The Levanters (Amman); Outsourced Developer, Skilltech-me (Dubai) 2011 – 2014
PHP, MySQL, JavaScript and WordPress web and mobile applications; legacy migrations

CORE COMPETENCIES

Leadership: Technical strategy and roadmap; OKRs; building and leading distributed teams of up to 18 across three continents; hiring, mentorship and succession; executive advisory; reliability and risk reporting

Infrastructure & Reliability: Hybrid cloud (AWS, Azure); on-premise data centres; high availability and disaster recovery (RTO/RPO); zero-downtime upgrades; Terraform / Infrastructure as Code; Kubernetes; Docker; FinOps

DevOps & Delivery: CI/CD architecture; Azure DevOps; Ansible; release governance; DORA metrics; DevSecOps and policy-as-code; SigNoz, Datadog, New Relic, Grafana

AI & ML Infrastructure: MLOps; model optimisation and serving; FLOPs and algorithmic efficiency; real-time inference; NVIDIA GPU compute; hardware-enclave deployment

Security: Zero Trust architecture; end-to-end encryption; privileged access management; IP protection; data sovereignty; audit readiness

Architecture & Development: Microservices; event-driven and real-time systems (gRPC, HTTP/2); serverless; SaaS/PaaS design; high-volume data architecture; .NET Core / C#; Python; TypeScript / Angular; PHP; Unity

Domains: FinTech and regulated banking; credit decisioning; emotional and causal AI; GovTech; in-flight entertainment; computer vision

PUBLICATIONS & RECOGNITION

- Herrero, Saxena and Rayyan (2026). Deductive Causal Architecture (DCA): A Psychology-based Framework for Human Understanding and Real-time Personalization in AI Governance. Zenodo, zenodo.org/records/19678850
- Guest, AWS for AI podcast: "Understanding human emotions through AI" (YouTube)
- Khaleej Times, 30 Oct 2022: "Dubai: Emotional analysis to assess tram drivers in real time"
- UAE Golden Visa for Talents (2022) · Best Leader Award, MOHRE · Best Program Award, Philadelphia University (2013) · ACM Programming Competition Honourable Mention (2012)

EDUCATION & LANGUAGES

BSc Software Engineering, Philadelphia University, Amman, Jordan · GPA 3.7/4.0 2014

CTO Mentorship Program, executive track in technical strategy and leadership

Languages: English (fluent), Arabic (native)