

Viveak Vadivelkarasan

Tech Lead | Distributed Systems · External API Platforms · AWS & Kubernetes

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EXECUTIVE PROFILE

Hands-on technical leader with 9+ years building distributed backend platforms and external APIs. Tech Lead for External APIs on my latest project, leading 9 engineers across parallel workstreams and owning architecture and engineering standards for a platform handling ~1M events/day. Experienced in complex migrations, including serverless-to-Kubernetes re-platforms and zero-disruption cutovers, and in shipping independent products from idea to production.

SELECTED IMPACT

- ~1M events/day through the webhook delivery platform built on my latest project
- 300+ engineers impacted by an EC2-to-Kubernetes migration I led at Dyson
- ~30% fewer customer-service contacts after automating self-returns on LEGO.com
- 0 customer-visible disruptions during LEGO's Salesforce Marketing Cloud migration

TECHNICAL SKILLS

Languages & Backend	TypeScript · Node.js · NestJS · Java · Python · REST · OpenAPI
Distributed Systems	Event-driven architecture · Kafka · EventBridge · Webhooks · Outbox pattern · Idempotency · Circuit breakers · Rate limiting · Dead-letter queues
Cloud & Platform	AWS (EKS, ECS, Lambda, SQS, S3, CloudWatch) · Kubernetes · Docker · Terraform · CI/CD
Data & Messaging	PostgreSQL · Redis · BullMQ · Databricks
Security & API Design	OAuth 2.0 · OIDC · API authentication & authorisation · HMAC signing · ETag / Retry-After
Observability	Datadog · CloudWatch · Correlation-ID tracing
Leadership & Practice	Architecture ownership · Technical strategy · Engineering standards · Stakeholder management · Mentoring

PROFESSIONAL EXPERIENCE

Current employer (confidential) · Tech Lead, External APIs Jul 2025 - Present · London

- Technical lead for a team of 9 engineers across multiple parallel workstreams, working closely with product, delivery and the technical architect, building the external API platform behind reservations, availability and pre-booking: the integration surface for 5 major third-party clients, with more onboarding.
- Designed and built the event-driven webhook delivery platform behind every external client integration: ~1M events/day on AWS EventBridge and BullMQ/Redis, with HMAC-signed payloads, per-subscription circuit breakers, rate limiting, exponential-backoff retries and a Postgres-backed dead-letter queue.
 - Re-platformed a high-volume data service from AWS Lambda to a long-running EKS service, removing timeout ceilings and cold starts while adding back-pressure handling, resumability and full observability.
 - Authored the platform's push-to-pull integration strategy (operation-status endpoints with Retry-After and ETag semantics) and its four-phase rollout, cutting integration cost for clients.
 - Own the shared authentication and authorisation tooling used across the external APIs estate.
 - Set the platform's engineering standards: outbox publishing, idempotent mutations, correlation-ID tracing and Datadog observability.
 - Introduced team-wide use of AI coding agents and agentic workflows across design, delivery and code review, raising throughput without lowering standards.

Deloitte Digital · Manager, Technology Consulting

Jun 2018 - Jul 2025 · London

Promoted through Engineer → Senior Engineer → Lead Engineer → Manager, leading engineering on client programmes for LEGO, Dyson and UK Government.

Technical Lead · LEGO Customer Data Platform

Jul 2024 - Jul 2025

- Led the integration of Databricks as the Customer Data Platform for LEGO.com, centralising user data to power key metrics, persona modelling and market segmentation.
- Architected the AWS pipeline consolidating source streams into Salesforce CRM; recovered a delayed initiative and brought delivery back on schedule.

Technical Lead Engineer · UK Government

Feb 2023 - Jul 2024

- Introduced the client's first asynchronous service journey and provided the architecture guidance that secured follow-on engagement scope.
- Turned around an underperforming delivery team while directing MVP scope and roadmap: reset the cadence, closed deadline gaps and raised throughput.

Lead Engineer · LEGO Salesforce Marketing Cloud Migration

Jun 2021 - Dec 2022

- Migrated LEGO's communication channels from Oracle Crowdtwist to Salesforce Marketing Cloud with a team of four engineers and zero customer-visible disruption.
- Built the AWS integrations underpinning the scale and reliability of the new marketing pipeline, and ran technical stakeholder sessions through cutover.

Full-Stack Developer · LEGO.com

Jun 2020 - Jun 2021

- Designed and shipped the AWS-driven automated self-returns journey on LEGO.com, cutting customer-service contact volume by ~30%.

Lead Engineer · Dyson (Frontend Engineer until Nov 2019)

Jun 2018 - May 2020

- Led the EC2-to-Kubernetes migration on AWS for a 300+ engineer organisation (auto-scaling, faster deploys, measurable cost reduction) and built automated UAT and performance environments.
- Earlier, built reusable AEM components rolled out across Dyson's European e-commerce estate.

EARLIER EXPERIENCE

Gentrack · Software Engineer · 2018 · Backend invoicing solutions in Java.

Accenture · Application Developer · 2017 - 2018 · Raised HMRC automated test coverage from ~25% to 75%+.

Tullett Prebon · Software Engineer Intern · 2016 · Market-data trading platform used during the EU referendum.

Accenture · Industrial Placement · 2015 - 2016 · Overhauled automated test strategy and coverage.

FOUNDER & PRODUCT ENGINEER · AADHIPIXELS

Independent product studio where I identify product opportunities, then design, architect, build, deploy and operate the software myself, alongside smaller experiments taken from concept to working product.

- **TheCocoCard**: Digital loyalty platform for local businesses. Business back-office, consumer PWA and Flutter app on Firebase backends, deployed on Vercel and Firebase with cross-app Playwright E2E tests.
- **Fixabee**: Local-services marketplace in Flutter and Firebase. Bookings, provider onboarding with Stripe payouts, postcode-based discovery and referrals, shipped through full dev/test/prod release environments.

EDUCATION & CERTIFICATION

BSc (Hons) Computer Science · City, University of London · 2017

AWS Certified Solutions Architect