

# Rohit Vipin Mathews

## Director - Engineering & Architecture

Seeking leadership roles in engineering, platform, or architecture.

15 years building engineering organisations, cloud-native platforms, and AI-enabled systems. Led 350+ engineers across offshore, nearshore, and onshore accounts.

40-55% Infrastructure Cost Reduction | 350+ Engineers Led | \$5M+ Platform Value Delivered | 30%+ AI Productivity Gain  
[rohityipin@gmail.com](mailto:rohityipin@gmail.com) | <https://www.linkedin.com/in/rohityipinmathews> | <https://github.com/rohityipin>

---

## EXPERIENCE

### Director - Engineering & Architecture

April 2024 - Present

CES IT - Chennai, India

Led 350+ engineers across USA onshore and India offshore squads through the full modernisation of a large-scale K-12 HCM platform suite - Recruiting & Hiring and HR Information System & Document Management - for one of the largest K-12 HCM software providers in the US. Drove AI-assisted development adoption, unified the HR product platforms, and changed how the engineering org delivered.

- Built and scaled engineering teams across USA onshore and India offshore locations from ground up, establishing delivery rhythm, execution accountability, and quality standards
- Owned headcount planning and delivery accountability for 350+ engineers across India offshore and USA onshore teams spanning 6 distributed squads, including hiring, performance management, succession planning, and attrition management
- Directed an org of 2 Engineering Managers and 4 Architects as direct reports - EMs accountable for India-based delivery squads of 40-60 engineers each, Architects owning domain-level technical strategy - supported by team leads and engineers across Recruiting & Hiring, HR Information System & Document Management, Platform, Architecture, and DevOps tracks
- Owned annual engineering headcount and tooling budget across 6 delivery tracks, including resource planning, vendor tooling spend, and capacity forecasting for multi-year client programmes
- Directed multiple scrum teams through product engineering model, aligning business priorities across Recruiting & Hiring and HR Information System & Document Management platform evolution
- Aligned with VP, SVP, and C-suite stakeholders across product, engineering, and operations - owning architecture decisions, escalation paths, and strategic technology roadmaps at the account level
- Led pre-sales and solution architecture engagements - RFP responses, Business Requirements Documents (BRDs), PoC design, and executive architecture presentations - that secured and expanded multi-year client accounts
- Deployed tiger-team model for critical client escalations and new account onboarding, pairing senior India-based architects with USA-side delivery leads to establish trust and get teams delivering faster on complex greenfield engagements
- Operated hunter model for engineering-led growth: identified expansion opportunities within existing accounts, translated internal capability demonstrations into scoped statements of work, and collaborated with business development on net-new engineering scope
- Ran an R&D function evaluating emerging tooling, frameworks, and AI capabilities - output fed directly into client technology roadmap recommendations and internal platform investment decisions
- Unified HR pillar products, improving interoperability and data flow between legacy and modern systems through Kafka, AWS, APIs, and gateway-led integration
- Ran pilot programmes and PoCs for agentic AI workflows, AI-assisted development tooling, and autonomous code generation, raising the org's AI capability
- Established Claude Code and GitHub Copilot guilds, training 50+ developers on AI-assisted practices and improving delivery productivity 30%+
- Implemented AWS Bedrock-based solutions including RAG systems and structured data extraction achieving 90%+ accuracy with optimised model selection for cost, latency, and quality
- Owned architecture validation and technology selection as hands-on architect, resolving technical blockers and keeping the architecture coherent across all delivery tracks
- Strengthened production operations, cutting operational incidents by 45% through monitoring, observability, alerting, and catching problems before they became incidents
- Drove data warehouse and analytics modernisation including ETL pipeline design and AI/ML integration for predictive analytics

Tech: .NET Core, C#, TypeScript, React, Next.js, AWS, AWS ECS, AWS Lambda, Kafka, AWS Bedrock, SQL Server, PostgreSQL, Azure DevOps, Terraform, Docker, Microservices, Event-Driven Architecture, RAG

### Solutions Architect

April 2022 - March 2024

CES IT - Chennai, India

Led project-facing solution architecture for platform modernisation work across logistics, hospitality, and agriculture, combining architecture ownership with hands-on delivery and direct team coaching.

- Architected complete platform rewrite of legacy logistics system to Blazor WASM/Server hybrid supporting 500K+ daily transactions, reducing load time 45% and securing \$2M+ modernisation investment
- Designed microservices-based loyalty platform on Azure Kubernetes Service with Domain-Driven Design, delivered MVP in 5 months supporting 100K+ members with 99.95% uptime and sub-200ms response times
- Led cloud migration of 3 legacy .NET MVC applications to containerized .NET Core APIs on AWS ECS, cutting infrastructure costs 55% (\$180K annually)
- Established CI/CD pipelines using Azure DevOps enabling daily deployments and reducing release cycles from 2 weeks to 2 days
- Built reusable component ecosystems and shared service libraries across Azure Service Fabric and Blazor platforms, improving engineering velocity
- Responded to RFPs and produced Business Requirements Documents (BRDs) for platform modernisation engagements, translating complex legacy system state into scoped architecture proposals that became the engagement baseline for delivery teams
- Led PoC delivery for enterprise clients evaluating cloud-native and AI-augmented capabilities - outcomes directly influenced client investment decisions and shaped contract scope
- Secured \$2M+ modernisation investment for a logistics operator through a pre-engagement architecture proposal covering Blazor WASM/Server hybrid architecture, real-time SignalR cargo tracking, and load performance modelling
- Ran architecture tiger teams on high-risk delivery situations, combining deep technical ownership with accelerated stakeholder trust recovery on complex greenfield and brownfield engagements
- Produced technology roadmaps and architecture review deliverables for C-suite audiences across agriculture, logistics, and hospitality domains

Tech: .NET Core, C#, Blazor WASM, Blazor Server, Azure Kubernetes Service, Domain-Driven Design, PostgreSQL, Redis, SQL Server, SignalR, Azure Service Bus, Azure DevOps, CI/CD, Microservices, Docker, Python, AWS ECS, AWS S3

### Technical Architect

April 2019 - March 2022

CES IT - Chennai, India

Architected a multi-module agribusiness management platform covering Crop & Field Management, Grain Operations & Settlement, Producer Self-Service Portal, and Accounting, and led mobile engineering practice across serverless AWS infrastructure with hands-on technical leadership.

- Designed comprehensive serverless architecture on AWS (Lambda, API Gateway, DynamoDB, PostgreSQL, SQS, Cognito, S3) supporting \$5M+ annual operations
- Delivered Crop & Field Management: field management, soil sampling, precision crop plans, prescription management, and agronomic analytics
- Delivered Grain Operations & Settlement: elevator management including scale tickets, contracts, position tracking, settlement processing, and storage management
- Delivered Producer Self-Service Portal: mobile/web portal for account visibility, field maps, agronomic data, grain positions, and invoice access
- Delivered Accounting: financial operations for ag co-ops covering A/R, A/P, G/L, and payroll workflows
- Built data warehouse and ETL pipelines for agricultural analytics enabling predictive models for crop optimisation and yield forecasting
- Developed Docker-based testing framework enabling automated integration testing across 20+ microservices achieving 80%+ coverage
- Led cross-platform mobile engineering using Xamarin serving 50K+ professionals with 4.5+ star ratings and offline-first architecture for field operations
- Mentored 25 engineers across distributed locations in serverless patterns, AWS services, and microservices architecture

Tech: .NET Core, C#, AWS Lambda, API Gateway, DynamoDB, PostgreSQL, SQL Server, SQS, Cognito, S3, Xamarin, Angular 18, TypeScript, agGrid, Docker, Azure DevOps, Serverless

### Associate Technical Architect

April 2017 - March 2019

CES IT - Chennai, India

Expanded into architecture ownership from senior engineering, leading technical design for agriculture and mobile platform features while mentoring engineers and driving delivery quality.

- Led technical design and implementation for key agribusiness platform modules, owning full delivery from architecture to production
- Drove mobile engineering initiatives using Xamarin, establishing cross-platform patterns adopted across the team
- Mentored junior and mid-level engineers on .NET, cloud, and mobile development practices
- Awarded CESITian Award for Outstanding Technical Contribution (2018)

Tech: .NET Core, C#, Xamarin, AWS, SQL Server, Azure DevOps

### Senior Software Engineer

November 2015 - March

2017

CES IT - Chennai, India

Delivered features across full-stack .NET and Xamarin mobile projects, progressing into technical leadership and cross-team delivery ownership.

- Built full-stack features on .NET backend services and Xamarin mobile applications across agriculture domain projects
- Led technical delivery for feature streams, coordinating with product and QA for full release quality
- Deepened AWS and cloud integration knowledge contributing to serverless adoption initiatives

Tech: .NET, C#, ASP.NET MVC, Xamarin, AWS, SQL Server, JavaScript

## Software Engineer

July 2013 - November

2015

Vofox Solutions - Kerala, India

Delivered software solutions for enterprise clients, building skills across .NET, mobile, and web technologies in an agile delivery environment.

- Developed enterprise .NET applications and web solutions for diverse client portfolios
- Built early mobile development expertise contributing to cross-platform app delivery
- Awarded Best Upcoming Developer (2013)

Tech: .NET, C#, ASP.NET MVC, JavaScript, SQL Server, Xamarin

## Software Developer

January 2012 - July 2013

Essel Swolutions - Kerala, India

First professional role - delivered software development across web and application projects, establishing foundations in .NET and C# development.

- Delivered web and desktop application features in .NET and C#
- Collaborated in structured delivery teams, building professional engineering fundamentals

Tech: .NET, C#, ASP.NET, SQL Server, Visual Basic .NET

## SKILLS

**Strategy & Org Leadership** Technology Roadmap Ownership, Engineering Culture Design, Build vs Buy Evaluation, Headcount & Budget Planning, Pre-sales & RFP Delivery, BRD / Solution Scoping, Tiger Team Leadership, Hunter Model / Account Expansion, Vendor & Partner Management, OKR Design, Succession Planning, Distributed Team Governance, Onshore / Offshore Delivery

**Leadership & Organisation** Team Scaling (0 to 350+), Stakeholder Management, Engineering Culture, Execution Excellence, Performance Management, Distributed Team Leadership, Onshore / Offshore Delivery, Product Engineering Model, OKR & Roadmap Ownership

**Platform & Architecture** .NET Ecosystem, Microservices, Serverless, Event-Driven Architecture, Domain-Driven Design, API Design, AWS (Lambda, ECS, EKS, API Gateway, Bedrock), Azure (AKS, Service Fabric), Kubernetes, Docker, Terraform, AWS CDK, Infrastructure as Code, IdentityServer, OpenID Connect, OAuth 2.0, Test-Driven Development, BDD / Gherkin, Legacy Modernisation

**Backend & Runtimes** C#, .NET Core, ASP.NET Core, Node.js, Python, PowerShell, Visual Basic .NET

**Frontend & Web** React, Next.js, TypeScript, JavaScript, Angular, AngularJS, VueJS, Svelte, Blazor WASM/Server, agGrid, SignalR

**AI & Modern Engineering** AWS Bedrock, Azure AI, Agentic AI, RAG Systems, Semantic Kernel, Claude Code, GitHub Copilot, LLM Integration, Model Evaluation, AI-Assisted Development, Developer Productivity Guilds, AWS CDK

**Data & Integration** Data Warehouse Design, ETL Pipelines, Kafka, REST/GraphQL APIs, MS SQL / PostgreSQL / MySQL, DynamoDB, Redis, Neo4j, TimestreamDB, SQLite, Entity Framework Core, Analytics Platforms, Gateway Patterns, Event Grid, Message Queues

**Mobile & Cross-Platform** Xamarin (Forms & Native), .NET MAUI, Offline-First Architecture

**Domain Expertise** K-12 Education HCM, Agriculture & Precision Agronomy, Logistics & Supply Chain, Hospitality & Loyalty Platforms

## NOTABLE PROJECTS

### K-12 HCM Platform Modernisation

April 2024 - Present

Education - Confidential - Leading US K-12 HCM Provider - Director - Engineering & Architecture

Full modernisation of a large-scale K-12 Human Capital Management platform serving US school districts. Unified Recruiting & Hiring and HR Information System & Document Management products on a modern event-driven, cloud-native architecture.

- Scaled engineering from ground up across USA onshore and India offshore teams
- Unified HR product pillars through Kafka, AWS, and API gateway integration
- AWS Bedrock RAG systems achieving 90%+ structured data extraction accuracy
- Claude Code and GitHub Copilot guilds improving delivery productivity 30%+
- Cut operational incidents by 45% through observability and monitoring

Tech: .NET Core, C#, TypeScript, React, Next.js, AWS, AWS ECS, AWS Lambda, Kafka, AWS Bedrock, SQL Server, PostgreSQL, Microservices, Event-Driven Architecture, RAG, API Gateway, Azure DevOps, Terraform

## Dapper.Repository

2024

Open Source / Developer Tooling - Personal - Creator & Maintainer

Open source CRUD library wrapping Dapper and exposing a Repository pattern interface with auto-generated operations. Published on NuGet.

- Auto-generated CRUD operations via Repository interface
- Wrapper around Dapper for clean data-access patterns in .NET

Tech: .NET, C#, Dapper, SQL, NuGet

## Precision Agriculture & Genomics Platform

April 2022 - March 2024

Agriculture - Confidential - Leading Agricultural Genetics Company - Solutions Architect

Solution architecture for a precision agriculture and genomics platform supporting crop breeding programs, field trial management, genomic data pipelines, and commercial trait deployment for large-scale agricultural operations.

- Designed cloud-native architecture for genomics data pipelines handling large-scale biological datasets
- Integrated field data collection with laboratory genomics systems for full breeding traceability across the programme
- Built a data platform for multi-location trial data aggregation and analytics across research sites

Tech: .NET Core, C#, Python, AWS, AWS ECS, AWS S3, PostgreSQL, React, REST APIs, Microservices, Data Pipelines, Azure DevOps

## TECHNICAL EXPERTISE

---

### AI Engineering

Launched an enterprise AI enablement practice in Q1 2024, scaling to 50+ developers across two geographies by year-end. Shipped production AWS Bedrock RAG systems achieving 90%+ structured data extraction accuracy, led org-wide Claude Code and GitHub Copilot guilds (30%+ delivery productivity lift), executed agentic workflow PoCs with mature context engineering discipline (evaluator separation, reset patterns, state management), and published an internal AI engineering charter covering contract-first development, deterministic debugging with Testcontainers, and observability-driven agent design using OpenTelemetry, Sentry, and Datadog.

### Test-Driven Development

Established test-first engineering practices at organisation scale, treating test coverage as a delivery constraint rather than a post-hoc quality check. Built Docker-based integration test frameworks achieving 80%+ coverage across 20+ microservices on the agribusiness platform. Codified Testcontainers-based deterministic testing and contract-first development in the internal AI engineering charter. Ran BDD / Gherkin as the shared specification language across product and engineering, enabling daily CI/CD deployments without manual release gates across 350+ engineer delivery tracks.

### Domain-Driven Architecture

Applied Domain-Driven Design as the primary decomposition strategy across multi-module platform builds. Designed the agribusiness management platform - Agronomy, Grain, Grower Portal, and Accounting - as bounded contexts with explicit domain models supporting \$5M+ annual operations. Led the Azure Kubernetes Service loyalty platform architecture using DDD, delivering MVP in 5 months with 99.95% uptime and sub-200ms response times for 100K+ members. Used bounded context mapping to align engineering team structure with product domains across the K-12 HCM platform covering Recruiting & Hiring, HR Information System, and Document Management.

### Serverless Application Development

Designed and delivered production serverless architectures on AWS at scale. Architected the full serverless stack for a multi-module agribusiness platform - Lambda, API Gateway, DynamoDB, SQS, Cognito, and S3 - supporting \$5M+ annual operations. Mentored 25 engineers across distributed locations in serverless design patterns, event-driven decomposition, and cold-start mitigation. Applied serverless at the service boundary in the K-12 platform modernisation alongside containerised workloads, selecting compute model per workload profile rather than applying serverless by default.

## EDUCATION

---

### Bachelor of Technology in Computer Science

2011

## COMMUNITY

### XHackers Xamarin User Group - Founder & Organiser

Community  
Leadership

Chennai, India

Founded and led the XHackers Xamarin User Group in Chennai, organising 20+ meetups attended by 500+ developers focused on mobile and cross-platform development.

- Organised 20+ technical meetups
- Built community of 500+ attendees
- Focused on Xamarin, MAUI, and cross-platform mobile engineering

### Xamarin / MAUI Library Maintainer

Open Source

Maintainer of open source Xamarin and .NET MAUI libraries published on NuGet, collectively downloaded 50K+ times by the developer community.

- Published multiple NuGet packages
- 50K+ total downloads
- Libraries targeting Xamarin.Forms and .NET MAUI ecosystems

### Conference Speaker & Community Volunteer - .NET, Azure, Xamarin & Cloud

Conference  
Speaking

Speaker at Microsoft-sponsored developer events, community bootcamps, and international .NET meetups across India and the USA. Organiser and regular speaker at XHackers India chapters covering cross-platform mobile, cloud-native architecture, ML.NET, and engineering leadership. Also volunteered at AWS Summit Chicago, contributing to the global cloud community beyond the Microsoft ecosystem.

- Xamarin Dev Days Chennai (August 2017, Hablis Hotel, Chennai) - featured speaker alongside Microsoft Xamarin Evangelist Nish Anil and Syncfusion engineering team; full-day event covering Xamarin.Forms architecture and cross-platform mobile development; co-organised by XHackers Chennai, sponsored by Syncfusion
- Global Azure Bootcamp - Chennai (2016, 2017, 2018, Chennai, India) - speaker at the annual worldwide community Azure event held simultaneously across 200+ global locations; sessions covered Azure cloud services, mobile services, and serverless architecture; Chennai editions hosted 200-450 attendees at Tech Mahindra, Sholinganallur
- ML.NET Community Talk, Kochi (2024) - delivered session on ML.NET and machine learning engineering practices for .NET developers at a regional Kochi developer community event
- Chicago .NET Mobile Developers Meetup, Chicago, USA (2016) - speaker on Xamarin cross-platform mobile architecture and .NET development during USA onshore client engagement; presented to Chicago-based .NET developer community
- Kerala .NET / K-MUG Meetup, Kochi (recurring) - speaker at Kerala Microsoft Users Group (.NET meetup) in Kochi covering .NET architecture, cloud engineering, and cross-platform mobile development
- XHackers Chennai Monthly Sessions (2015-2019, Microsoft India office, Prestige Polygon, Chennai) - speaker and founding organiser across 20+ monthly sessions covering Xamarin.Forms, .NET MAUI, serverless architecture, and cross-platform engineering; community grew to 1,300+ registered members
- .NET Dev Summit 2020 (Virtual, August 2020) - speaker and co-organiser of virtual developer conference covering the .NET ecosystem and cloud development practices
- India Microsoft Azure Community Conference 2020 (Virtual, November 2020) - speaker and co-organiser covering Azure cloud engineering, service design, and operational patterns
- XHackers Kerala inaugural meetup (November 2014, Startup Village, Kalamassery, Kochi) - co-organised and spoke at the first-ever Xamarin User Group event in Kerala; Xamarin Evolve recap for Kochi developer community
- AWS Summit Chicago - Volunteer (2017, McCormick Place, Chicago, USA) - volunteered at Amazon Web Services annual US Summit during USA onshore engagement; attended deep-dive sessions on AWS cloud architecture, serverless, containers, and IoT; present during the live S3 demo disruption caused by the US-East-1 outage (February 2017)

## AWARDS

### CESITian Award - Outstanding Technical Contribution

2018

CES IT

Awarded for technical leadership and architecture work on the agribusiness platform during its initial build-out.

### Best Upcoming Developer

2013

Vofox Solutions

Awarded for outstanding performance and rapid growth as a software engineer early in career.

**Community Leadership Award**

2016

Xamarin User Group Initiative

Recognised for founding and leading the XHackers Xamarin User Group Chennai, organising 20+ meetups with 500+ attendees.