

Abishek Mosesraj

Tech Lead · Senior Consultant · Chennai, India

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SUMMARY

Tech Lead and Senior Consultant with a strong track record of building backend systems that operate at scale. At Roanuz, built and maintained AWS infrastructure that processed over **4 billion API requests**, cut hosting costs from **\$18K to \$9K per month**, and supported platforms handling **50,000 requests per hour**. Currently at Thoughtworks, working with an enterprise client on agentic AI, contributing significant code to an **in-house AI orchestration framework** that simplifies building LLM-powered conversational workflows using LangGraph and CrewAI. Comfortable across the full backend stack, from REST API design and cloud infrastructure to event-driven architecture and distributed systems. Has led and mentored engineering teams, managed production deployments, and worked across fintech, sports data, and AI domains.

SKILLS

Languages	Python · JavaScript · Bash
Frameworks	FastAPI · Flask · Aiohttp · Ariadne
AI & Agentic	LangGraph · CrewAI · AWS Bedrock · Prompt Engineering · OpenTelemetry
AWS Services	EC2 · ECS · ECR · Lambda · S3 · Athena · Redshift · API Gateway · CDK · SQS · SNS · EventBridge · CodePipeline · CloudWatch · Bedrock · Fargate
Messaging & Streaming	Apache Kafka · RabbitMQ · AWS SQS/SNS
Relational & Analytical	MySQL · AWS Redshift · AWS Athena
NoSQL	DynamoDB (Key-Value) · Cassandra (Wide-Column) · MongoDB (Document) · DocumentDB (Document) · Meilisearch (Search)
DevOps & Infra	Docker · AWS ECS · AWS CDK · CloudFormation · Git · CodePipeline · CloudWatch · OpenTelemetry (OTEL)

EXPERIENCE

Thoughtworks - Client: Enterprise Client

Senior Consultant

Jun 2025 - Present · Chennai

- Core contributor to an **in-house AI orchestration framework** that abstracts LangGraph and CrewAI into declarative YAML-based agentic workflows, cutting the time teams need to build enterprise conversational AI.
- Extended the framework with **AWS Bedrock** support so teams can switch LLM providers without changing workflow definitions.
- Improved core prompt engineering within the framework, enhancing agent response accuracy and reliability.
- Implemented end-to-end observability using **OpenTelemetry (OTEL)** tracing across distributed agent execution pipelines.
- Contributing to a **WhatsApp AI customer support agent** for an enterprise client using LangGraph, CrewAI, and FastAPI.
- Mentoring developers across a **10-20 person cross-functional team** on code quality and engineering standards.

Roanuz

Tech Lead

Dec 2021 - May 2025 · Chennai

- Architected AWS infrastructure (EC2, S3, Lambda, ECS) achieving **99.9% uptime** across **4B+ API requests** processed over the tenure.
- Led hosting cost optimisation, reducing infrastructure spend from **\$18K to \$9K/month (50% reduction)**.
- Led a team of **5 engineers** building scalable Python-based sports data management and analytics platforms.
- Built a real-time collaborative sports editing platform using **WebSockets**, improving team productivity and data accuracy.
- Implemented **Docker and AWS ECS** containerisation, reducing deployment time by **40%**.
- Established CI/CD pipelines using **AWS CodePipeline**; served as Developer Advocate for internal framework.

Software Engineer

May 2019 - Dec 2021 · Chennai

- Developed and optimised **REST APIs** for sports analytics platforms handling **50,000 requests/hour** at average load.
- Set up AWS cloud infrastructure for cricket and football data, designed to scale from day one.
- Improved IT Operations Support with proper workload tracking, leading to the establishment of a dedicated IT Ops team.
- Recognised as **Standout Performer 2021** for technical excellence and process improvements.

Amazon

ML Data Associate

Nov 2016 - May 2019 · Chennai

- Built **automation tools** for data workflow bottlenecks, increasing delivery speed by **25%**.
- Drove QA quality improvements from **88% to 92%** through systematic error pattern analysis.
- Received the **Extra Mile Award** for continuous contributions to process improvement.

KEY PROJECTS

API Billing & Monetisation System ↗

Software Engineer · Roanuz

Usage-based billing system for CricketAPI with real-time metering, dual payment gateway integration, and a self-service business console.

- Integrated **Stripe** (international) and **Razorpay** (India) with idempotency and reconciliation across both providers.
- Built real-time usage metering using **AWS EventBridge and DynamoDB** with sub-minute per-customer granularity.
- Developed a self-service console for plan management and revenue dashboards, eliminating developer dependency for commercial ops.

Tech: Python · Flask · DynamoDB · EventBridge · Lambda · Stripe · Razorpay

Real-time Collaborative Sports Editor (ANTS) ↗

Tech Lead (Team of 5) · Roanuz

Led 5 engineers to design and deliver a real-time collaborative data editor for live cricket coverage, replacing a legacy tool with latency and concurrency issues.

- Drove end-to-end delivery: system design, API contracts, service architecture, infrastructure setup, and phased migration.
- Implemented **event-driven architecture** with Kafka and RabbitMQ for sub-second live data propagation across concurrent editors.
- Achieved **30% faster data entry** vs legacy, with concurrent editing support and live conflict resolution.

Tech: Python · Kafka · RabbitMQ · Cassandra · DynamoDB · AWS ECS

Zero-Downtime CI/CD Pipeline

Software Engineer → Tech Lead · Roanuz

End-to-end CI/CD system for frontend, backend, and Lambda deployments with canary releases and automatic rollback.

- Implemented **canary deployments** via CodeDeploy + ECS with automatic traffic shifting and rollback on health check failures.
- Defined infrastructure as code with **AWS CDK**; reduced deploy time from hours to minutes with zero outages.

Tech: CodePipeline · CodeDeploy · ECR · ECS · Lambda · Docker · AWS CDK

Internal Framework Enhancements

Developer Advocate · Roanuz

Extended Roanuz's internal Python framework with built-in search, message queue processing, and private package management - adopted by multiple teams.

- Integrated **Elasticsearch** as a built-in search provider and serverless task orchestration via **AWS Fargate and Lambda**.
- Set up a private **AWS CodeArtifact** registry for versioned, auditable internal Python package distribution.

Tech: Python · Elasticsearch · Fargate · Lambda · CodeArtifact · AWS CDK

EDUCATION

B.E. Mechanical Engineering

May 2016

Alpha College of Engineering · Chennai

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