

Jishnu Mohan P R

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Professional Summary

- Senior Backend Engineer with 7+ years of experience architecting and scaling serverless and distributed systems for high-traffic SaaS platforms. Proven track record of leading system design, driving technical decisions, and building resilient event-driven architectures on AWS using Lambda, EventBridge, SQS, API Gateway, and DynamoDB, with strong ownership across the full SDLC—from architecture and technical documentation to deployment, monitoring, and production support.
- Designed and implemented secure REST APIs, distributed workflows, and CI/CD pipelines, while also leading development of AI-powered agents and automation workflows by integrating LLM-based solutions into production for catalog enrichment, document processing, and content generation.

Experience

Software Development Engineer II, Treez Inc. Mar 2022 – Present

- Integrated LLM-based description agents and vision-driven image discovery agents into catalog onboarding, automating product content generation and web-based image retrieval. Reduced manual onboarding effort and improved time-to-publish. *[Node.js, Python, PostgreSQL, LLM]*
- Architected a Retail AI Platform using event-driven microservices to automate invoice processing and catalog onboarding. Designed an orchestrator service coordinating asynchronous workflows across multiple AI agents with reliable state transitions. *[Node.js, TypeScript, Python, PostgreSQL, AWS]*
- Designed and productionized a serverless Product Collection Service using AWS Lambda, EventBridge, and SQS, processing 50K+ events/day with idempotent consumers and DLQ-based retries. Achieved 99.9%+ message processing reliability while ensuring fault-tolerant, event-driven catalog updates across distributed services. *[TypeScript, AWS Lambda, AWS EventBridge, SQS, Serverless Architecture]*
- Built an internal Event Registry during a company hackathon that evolved into a shared platform for centralized event schema discovery and validation across 10+ services. Standardized event contracts, reduced integration errors, and accelerated cross-team development. *[TypeScript, AWS Eventbridge, SQS]*
- Implemented secure authentication using AWS Cognito as an Identity Provider (IdP) with SSO support. Designed and enforced role-based access control (RBAC) with user invitations and role switching, enabling fine-grained authorization across platform services. *[TypeScript, OAuth 2.0, AWS Cognito]*

Software Development Engineer, Diagnal Technologies May 2019 – Feb 2022

- Developed and maintained serverless backend services for 3 OTT applications, handling millions of requests per month using AWS Lambda, API Gateway, DynamoDB, S3, and CloudWatch. Built scalable REST and GraphQL APIs to support content delivery, user authentication, and CMS workflows. *[Node.js, GraphQL, AWS Lambda, DynamoDB]*
- Implemented authentication and social login using AWS Cognito, enabling secure user onboarding and token-based authorization across OTT platforms. *[Node.js, AWS Cognito]*
- Configured CI/CD pipelines using GitHub Actions and CircleCI to automate build, testing, and deployment workflows, enabling zero-downtime production releases. *[GitHub Actions, CircleCI]*
- Collaborated directly with clients to gather requirements, estimate backend effort, and translate business specifications into scalable technical solutions.

Skills

- **Languages:** Node.js, TypeScript, JavaScript, Python
- **Backend:** REST, GraphQL, Serverless Architecture, Event-Driven Architecture, Microservices, System Design, PostgreSQL, DynamoDB
- **AWS:** Lambda, EventBridge, SQS, API Gateway, S3, CloudFront, Route53, IAM, Cognito, CloudFormation
- **DevOps:** Docker, Kubernetes, GitHub Actions, CircleCI, Git, CloudWatch, Prometheus, Grafana
- **AI & Other:** LLM Integration, AI Agents, Model Context Protocol (MCP), Agile, Scrum

Education

M.Tech Robotics and Automation, Amrita School of Engineering 2019
B.E Mechatronics Engineering, Nehru Institute of Engineering and Technology 2016

Certifications

AWS Certified Cloud Practitioner | Certified Scrum Developer