SATHISH KUMAR S

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TECHNICAL SUMMARY

Module Lead and Senior Backend Engineer with **7+ years of experience** in backend development, cloud-native architecture, and AWS-based distributed systems. Specialized in **Node.js, TypeScript, AWS Lambda, API Gateway, and microservices**. Proven expertise in owning modules end-to-end — from requirement analysis and system design to development, performance optimization, and production rollout. Strong advocate of SOLID principles, clean architecture, automated testing, and DevOps best practices. Recognized for leadership, adaptability, and delivering scalable solutions aligned with business goals.

TECHNICAL SKILLS

Programming Languages:	JavaScript, TypeScript, Node.js
Backend & Frameworks:	Express.js, NestJS, REST APIs, Microservices Architecture
Cloud & DevOps:	AWS (Lambda, API Gateway, EC2, ECS, SQS, SNS, S3, Cognito, CloudWatch), Docker, Kubernetes
Messaging & Streaming:	SQS, MQTT, RabbitMQ
Databases:	PostgreSQL, MySQL, MongoDB, DynamoDB
CI/CD & Quality:	Bitbucket Pipelines, Jenkins, Jest, Unit Testing, Mocking, Code Reviews
Architecture & Practices:	SOLID Principles, Design Patterns, Clean Architecture, Agile/Scrum

PROFESSIONAL EXPERIENCE

Module Leader / Senior Backend Engineer
Aspire Systems | Client Location | 2024 – Present

- Leading end-to-end ownership of multiple backend modules including requirement analysis, feasibility checks, system design, development, and delivery.
- Designed an orchestration-based architecture to synchronize data across multiple internal platforms, ensuring consistency and reliability.
- Identified AWS Lambda cold-start and performance issues in a NestJS-based setup and proposed migration to plain JavaScript with Express, resulting in significantly improved execution time.
- Successfully executed a major **Node.js and NestJS version upgrade** across the project, addressing breaking changes, refactoring legacy code, updating dependencies, and ensuring backward compatibility.
- Structured codebases following SOLID principles and applied Factory and modular design patterns to improve maintainability and scalability.

- Achieved approximately 80% unit test coverage and optimized Jest configuration to reduce test execution time.
- Performed rigorous peer code reviews, enforced coding standards, and provided constructive feedback to maintain code quality.
- Coordinated with UI teams and consuming applications to finalize API contracts and integration requirements.
- Owned deployment-day activities by preparing checklists, coordinating dependencies, and performing post-deployment validation.
- Temporarily handled team leadership responsibilities by delegating tasks, mentoring developers, and ensuring uninterrupted delivery during the team lead's absence.

Senior Software Engineer
SeniorLife Technologies Inc. | Remote | 10/2022 – 2024

- Designed and developed scalable APIs and microservices using AWS Lambda and API Gateway.
- Initiated and implemented the migration of an AI processing engine from AWS Lambda to EC2, reducing processing time by approximately 95%.
- Architected and implemented the complete input/output pipeline using ECS, SQS, and Bitbucket Pipelines.
- Implemented monitoring and alerting using CloudWatch and SNS to improve system observability and reliability.
- Processed analytical data to support cost optimization and critical business decisions.
- Actively participated in design discussions, code reviews, and mentored peers on backend and AWS best practices.

Software Engineer
LS Technologies India LLP | Hyderabad | 06/2019 – 10/2022

- Worked in R&D to migrate legacy systems to scalable cloud infrastructure with negligible downtime.
- Implemented Infrastructure as Code using Terraform.
- Collaborated with DevOps teams to reduce system load and device onboarding time.
- Worked extensively with IoT protocols including MQTT, HTTP, WebSockets, Zigbee, and BLE.
- Led and delivered four third-party integrations, expanding the company's product portfolio.
- Developed and maintained Node.js APIs and standalone backend services.
- Built and maintained CI/CD pipelines using Jenkins.

Software Engineer Trainee
AIOT Labs | Chennai | 06/2018 – 07/2019

- Trained in backend development using Node.js, Express, Java, and AWS fundamentals.
- Worked on IoT-based solutions involving BLE and socket-based communication.
- Developed a hybrid mobile application as part of client deliverables.
- Gained hands-on understanding of the complete software development lifecycle.

KEY ACHIEVEMENTS

- Migrated an AI model from AWS Lambda to EC2, achieving ~95% performance improvement.

- Led backend module ownership with consistent on-time and high-quality deliveries.
- Improved documentation standards, test coverage, and deployment reliability across projects.
- Successfully executed major framework and runtime upgrades with zero production incidents.

EDUCATION

Bachelor of Engineering (EEE)
Government Engineering College, Tirunelveli | Anna University | 2013 – 2017

CERTIFICATIONS

AWS Certified Developer – Associate | 2023

LANGUAGES

English – Proficient | Tamil – Native