Jishnu Sanyal

Senior Software Engineer / Tech Lead | Backend & Event-Driven Microservices

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PROFESSIONAL SUMMARY

Senior Software Engineer and Tech Lead with 9+ years of experience building scalable, event-driven backend systems, microservices and RESTful APIs for enterprise clients. Specialized in compliance-driven billing and regulatory communication platforms for the Australian energy sector (AER, CDR), where accuracy, auditability and reliability are business-critical. Proven Feature Lead and Team Lead who turns complex regulatory requirements into robust microservices and mentors engineers. Deep expertise in .NET Core, ASP.NET Core Web API, C#, Node.js, TypeScript, Apache Kafka and cloud platforms (Microsoft Azure, AWS), grounded in TDD, CI/CD and clean architecture. AI-native engineer using Cursor, GitHub Copilot, LLM APIs, AI agents, MCP and RAG to accelerate delivery.

CORE SKILLS

Languages: C#, JavaScript, TypeScript, Java

Frameworks & Libraries: .NET Core, ASP.NET Core Web API, Entity Framework Core, .NET Framework, Node.js, Express.js, React, Spring Boot, Quarkus

Architecture & Design: Microservices, Event-Driven Architecture, Distributed Systems, RESTful APIs, System Design (HLD/LLD), Clean Architecture, Monolith-to-Microservices Migration

Databases: PostgreSQL, SQL Server, MongoDB, Redis, Elasticsearch

Messaging & Streaming: Apache Kafka, RabbitMQ, Azure Event Hubs, Azure Event Grid, Azure Service Bus

Cloud & DevOps: Microsoft Azure (Azure Functions), AWS, Docker, Kubernetes, Terraform, CI/CD (GitHub Actions, Jenkins, GitLab CI)

Security: OAuth2, JWT, Token-Based Authentication, B2B/B2C Identity, Audit Logging

Observability: Structured Logging, Monitoring, Alerting, Distributed Tracing, Audit Trails

AI & Developer Productivity: LLM APIs, AI Agents, MCP, RAG, Prompt Engineering, Cursor, GitHub Copilot

Practices: Test-Driven Development (TDD), Agile, Scrum, Extreme Programming (XP), Clean Code, Pair Programming, Code Reviews, Technical Leadership, Mentoring

PROFESSIONAL EXPERIENCE

Tally Group — Hyderabad, India — *Oct 2023 – Nov 2026*

Senior Developer Consultant / Offshore Tech Lead Consultant

- Owned and evolved backend systems powering billing and regulatory communication workflows for Australian energy retailers, ensuring accuracy, consistency and full auditability across 2M customer accounts.
- Architected and built compliance-driven communication platforms aligned with CDR and AER regulatory frameworks, ensuring every customer notice met strict formatting, timing and content requirements.
- Designed event-driven architectures on Apache Kafka and Azure Event Hubs that turn billing events, tariff changes and regulatory updates into customer notifications, 25K–35K per day at peak.
- Developed resilient RESTful APIs and microservices in .NET Core and Node.js handling an average of 100K transactions per day, with a focus on fault tolerance and graceful failure handling.
- Implemented validation layers, audit trails and traceable logging for compliance-critical systems, maintaining audit readiness with zero compliance incidents.
- Improved reliability and observability of time-sensitive financial workflows through structured logging, monitoring and alerting, reducing incidents by 40% over the year.
- Drove an AI-native development approach across the team using Cursor, GitHub Copilot and automated code analysis, cutting average feature delivery time by 30% while maintaining unit and integration test coverage.
- Established engineering practices including TDD, CI/CD pipelines and microservice deployment strategies, improving delivery predictability and reducing release risk.
- Led a team of 10 developers as Offshore Feature Lead, mentoring developers, facilitating design discussions and driving technical excellence across the delivery lifecycle.

ThoughtWorks Hyderabad, India *Jul 2017 – Sep 2023*

Senior Developer Consultant / Feature Lead

- Designed and built scalable backend systems and RESTful APIs for enterprise clients across retail, education, shipping and HR domains.
- Led the migration of legacy monolithic applications to microservices, reducing deployment time by 70%, enabling 10 independent deployments per week and improving scalability.
- Partnered directly with clients on solution design, system architecture, estimation and delivery as a trusted technical advisor.
- Designed and implemented CI/CD pipelines and embedded engineering practices (TDD, XP, pair programming), reducing defect rates by 30% across teams.
- Built secure B2B and B2C authentication systems using OAuth2 token-based security, protecting sensitive user and enterprise data.
- Delivered event-driven and distributed backend components handling 20K concurrent users with consistent performance under load.
- Mentored junior and mid-level developers through pairing, code reviews and technical guidance, strengthening team capability and delivery velocity.

KEY PROJECTS

Regulatory Communication & Notification Platform — Tally Group

Designed and delivered an event-driven platform that automatically generates and dispatches compliance notices (billing, tariff and regulatory updates) to energy customers under AER and CDR rules. Built with .NET Core and Node.js microservices on Apache Kafka and Azure Event Hubs, with full audit trails and traceable logging across retailer portfolios.

Impact: Reduced manual compliance effort by about 40% through end-to-end automation of notice generation and delivery; achieved zero reportable compliance incidents while processing 300K–400K notifications per month for more than 2M customer accounts.

Monolith-to-Microservices Migration — ThoughtWorks (Enterprise Client)

Led the decomposition of a large monolithic application into independently deployable microservices, defining domain boundaries, data ownership and API contracts. Introduced CI/CD pipelines, automated testing and containerized deployments (Docker, Kubernetes).

Impact: Cut deployment time from multi-day coordinated releases to under 1 hour per service; increased deployment frequency from monthly releases to 10 independent releases per week; handled 3x peak traffic with zero unplanned downtime.

EDUCATION

Bachelor of Computer Applications (BCA) *2015 – 2017*

Alagappa University, Karaikudi, Tamil Nadu, India

Diploma in Computer Science and Technology *2012 – 2015*

Acharya Prafulla Chandra Ray Polytechnic, Kolkata, West Bengal, India