RITHICK J

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SUMMARY

Product Developer with 1.5+ years of experience building production systems in **NestJS**, **Node.js**, and **PostgreSQL**, with hands-on full-stack experience in **React** and **Next.js**. Led the migration of a monolithic LMS platform to a microservices architecture, and architected a custom LMS from scratch as tech lead for a 5-person team. Comfortable owning a feature end-to-end — from API and schema design through to the React/Next.js interface.

SKILLS & TECHNOLOGIES

Languages: TypeScript, JavaScript, Python, Java

Backend: NestJS, Node.js, Express.js, Spring Boot

Frontend: React.js, Next.js

Databases & Caching: PostgreSQL, MySQL, Redis, MongoDB, Prisma ORM

Cloud (AWS): EC2, Lambda, RDS, API Gateway, S3, Amplify

DevOps & Tools: Docker, Jenkins (CI/CD), Kong Gateway, SonarQube, Elasticsearch, Kibana, BullMQ, Github

PROFESSIONAL EXPERIENCE

Junior Full Stack Developer — CreamCollar EdTech **Jun 2024 – Oct 2025**

- Replaced legacy Moodle infrastructure with a custom, high-performance in-house LMS by leading a 5-member engineering pod, reducing server costs by 30% and improving platform load times from avg of 900ms to 450ms and enabling customization.
- Accelerated deployment frequency by 80% and unlocked team autonomy by migrating a monolithic Express.js application to a NestJS microservices architecture.
- Reduced class scheduling and attendance errors to zero by building a Zoom API and webhook integration that automated the live class pipeline and removed manual instructor coordination which automated the end-to-end lifecycle for 90+ weekly live classes with (SQS)message queues for mail via invite and notification .
- Reduced production issue diagnosis time by 90% by implementing centralized ELK logging for AWS Lambda; designed comprehensive Kibana health dashboards and automated alert mailing systems to intercept system anomalies.
- Slashed p99 API latency from 1200ms to 500ms by executing targeted database query optimizations and architectural changes, significantly improving platform responsiveness under heavy traffic by implementing a Redis-backed caching strategy.
- Engineered high-performance data retrieval pipelines using Redis to cache complex, multi-table joins, drastically reducing database load and ensuring consistent sub-second response times during peak traffic by 90%.
- Architected a decoupled content ecosystem by deploying Strapi Headless CMS, engineering custom REST/GraphQL endpoints to optimize high-performance, structured data retrieval for downstream applications.
- Automated first-line qualitative assessment workflows by building a text-parsing AI agent that extracts core thesis arguments and project deliverables from student work, reducing human evaluation overhead for massive student cohorts.
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- Built an internal AI-assisted code parsing agent that maps raw endpoint logic to precise API payload contracts, drastically reducing manual schema drafting and payload modeling errors.
- Reduced average feature delivery time from 10 days to 5 days through early architecture reviews and modular service design while maintaining zero critical production regressions by partnering with product and design on early system design reviews and proactive scalability planning.
- Engineered an automated container deployment pipeline using Jenkins, Amazon ECR, and AWS Lambda, implementing immutable container tagging to guarantee zero-downtime rollbacks and highly reliable service delivery

Intern — CreamCollar EdTech **Feb 2024 – Jun 2024**

- Built core front-end, back-end, and database components for the LMS platform using Express.js, React, and PostgreSQL.
- Integrated Moodle for learning management and user management workflows.
- Implemented authentication and authorization using Keycloak.
- Configured Kong Gateway to manage and secure API traffic across services.
- Designed PostgreSQL schemas and optimized queries powering core platform features.
- Provisioned AWS EC2 instances and deployed Keycloak and Moodle for authentication and learning management.

PROJECTS

Billified — Invoicing Platform — *NestJS, PostgreSQL, React, AWS Lambda, AWS Amplify, Razorpay*
Live: https://billified.abqdevlabs.com

- Architected a Domain-Driven Design (DDD)-based GST-compliant invoicing platform from scratch, integrating Razorpay and automated PDF generation to handle complex tax calculations, securing 24 Pro users and 50+ Beta users on average of 15-30 invoices per day.
- Designed a plan-based usage metering and credit system, successfully gating premium features across subscription tiers to prevent platform abuse and drive tier upgrades.
- Increased paying customers from 4 to 24 (6× growth) by implementing a scalable multi-language localization framework tailored for local small businesses.
- Boosted organic user discoverability and slashed bounce rates by optimizing core web vitals to achieve an 85+ Google Lighthouse performance score.
- Guaranteed data integrity by engineering an automated cron pipeline in GitHub Actions for nightly database backups, mitigating production data-loss risks single-handedly.
- Architected a hyper-efficient serverless ecosystem costing <$5/month, deploying a backend on AWS Lambda via Jenkins CI/CD, frontend on AWS Amplify, and database on Supabase Postgres.

Chitit — Chit Management Platform — *NestJS, PostgreSQL, React, AWS Lambda, AWS Amplify*
Live: https://chitit.abqdevlabs.com

- Helps users create, manage, and organize chit fund groups digitally instead of relying on manual registers and spreadsheets.
- Boosted organic user discoverability and slashed bounce rates by optimizing core web vitals to achieve an 88+ Google Lighthouse performance score.
- Guaranteed data integrity by engineering an automated cron pipeline in GitHub Actions for nightly database backups, mitigating production data-loss risks single-handedly.
- Architected a hyper-efficient serverless ecosystem costing <$5/month, deploying a backend on AWS Lambda via Jenkins CI/CD, frontend on AWS Amplify, and database on Supabase Postgres.

.**MD Generator** — *Typescript, OpenRouter*
Live: https://marketplace.visualstudio.com/items?itemName=abqdevlabs.codecontext-ai

- Slashed LLM token overhead by 70% by building a VS Code extension that parses source files into function-level chunks, ensuring AI agents receive hyper-targeted context instead of bloated, raw source files, Implemented syntax-aware code parsing to map and extract precise function boundaries.
- Guaranteed strict codebase privacy and zero-latency execution by designing the entire function-chunking pipeline to run entirely locally on the client-side, eliminating external network dependencies and data leak risks.

Jira AI Agent — *Python, LangGraph, NextJS*

- Architected an autonomous project management agent using LangChain, orchestrating a RAG pipeline with PGVector embeddings to handle multi-tenant project contexts and automate the end-to-end Jira ticket lifecycle.
- Implemented robust error-handling and tool-calling validation using LangChain Expression Language (LCEL), ensuring the AI agent correctly maps unstructured user queries into deterministic Jira API payloads without hallucinating state transitions.
- Mitigated data exposure risks by engineering context-isolated system prompts and strict schema constraints, ensuring the agent operates within defined boundaries without leaking cross-tenant data.

EDUCATION

Master of Science, Information Technology — Vels Institute of Science, Technology & Advanced Studies, Chennai **8.9 CGPA • 2024**
Bachelor of Computer Applications — PSG College of Arts and Science, Coimbatore **7.9 CGPA • 2022**

CERTIFICATIONS

- Cloud Security Basics — University of Minnesota (Coursera)
- Programming for Everybody (Getting Started with Python) — University of Michigan (Coursera)