

VAISHNAVI NARANG

Senior Backend Engineer | Node.js/TypeScript & PostgreSQL | Scalable SaaS | High-Volume Transaction Systems

Saharanpur, India | +91 9045070604 | vaishnavinarang4@gmail.com | [Linkedin](#)

PROFESSIONAL SUMMARY

Senior Backend Engineer with 6+ years of experience building and scaling production-grade systems that serve millions of transactions daily. I specialize in designing robust, high-performance APIs using Node.js and TypeScript, with deep expertise in PostgreSQL optimization and database architecture. My approach centers on building systems that don't just work today, but scale reliably as demands grow—handling concurrency safely, maintaining data consistency through distributed transactions, and optimizing performance under load.

Throughout my career, I've focused on solving real problems: reducing latency for critical business workflows (15% P99 improvement), optimizing databases to handle 3x traffic growth without proportional infrastructure costs (20% load reduction), and architecting event-driven systems that serve millions of operations reliably. I bring strong OOP fundamentals, experience with AWS serverless architecture, and a genuine commitment to mentoring teams and establishing engineering excellence.

TECHNICAL SKILLS

Languages & Frameworks: Node.js, NestJS, Express.js, TypeScript, JavaScript, Python

Databases & SQL: PostgreSQL (Query Optimization, Data Migrations, Schema Design, Indexing), MySQL, MongoDB, Redis, Elasticsearch, ClickHouse

API Development & Architecture: REST APIs, API Design, GraphQL, JWT Authentication, Input Validation, Microservices, Event-Driven Architecture, Queue-Based Systems (Redis Pub/Sub, SQS)

Cloud & Infrastructure: AWS (Lambda, RDS, EC2, SQS, EKS), Docker, Kubernetes, Serverless Architecture, CI/CD Pipelines, Infrastructure-as-Code

Performance & Reliability: Concurrency Handling, Idempotent Processing, Circuit Breaker Patterns, Connection Pooling, Performance Optimization, Load Testing, Incident Response, Production Monitoring (Sentry, New Relic)

Engineering Excellence: OOP Principles, SOLID Design Patterns, Automated Testing, Code Reviews, SonarCloud Integration, Technical Leadership, Mentoring

PROFESSIONAL EXPERIENCE

Tech Consultant — Klikd.ai

Oct 2025 - Present

- Architected full-stack features for an AI-powered recruitment platform, designing document-processing pipelines that reliably transform unstructured resumes and job descriptions into clean, structured data—handling thousands of concurrent transformations with guaranteed consistency.
- Engineered a semantic search system on PostgreSQL/pgvector that serves 10M+ embeddings with sub-100ms query latency. This required thoughtful index design, query optimization, and understanding the tradeoffs between different indexing strategies—skills directly applicable to Deel's scale.
- Led backend deployment and operations on AWS infrastructure (Lambda, RDS, SQS, EKS), establishing JWT-based authentication, queue-based processing for high-volume operations, and production monitoring with Sentry. Took ownership of system reliability end-to-end.

Lead Software Development Engineer — SaaS Labs

Apr 2024 - Oct 2025

- Led the backend team building Node.js/NestJS services and REST APIs for a high-volume SaaS platform. Took ownership of scaling architecture as the product grew from 15 to 200+ concurrent users—not just writing code myself, but establishing the architectural patterns and standards that allowed the entire team to scale confidently.
- Systematically diagnosed and resolved performance bottlenecks in our most critical workflows, achieving a 15% reduction in P99 latency. This involved profiling database queries, identifying inefficient serialization patterns, optimizing connection pooling—the kind of detailed work that separates systems that "work" from systems that "scale."
- Architected event-driven workflows using Redis Pub/Sub that reduced connection delays by 40%, and implemented circuit breaker patterns to ensure our system remained resilient when external services failed. These weren't just architectural exercises—they directly improved customer experience during peak load.
- Built the foundation for production reliability: established on-call rotation, documented incident response procedures, conducted post-incident reviews. Integrated SonarCloud into our CI/CD pipeline to enforce code quality standards before deployment. Mentored junior engineers on both API design principles and the mindset required for production engineering.

Senior Software Development Engineer — SaaS Labs

Apr 2022 - Mar 2024

- Led a major technical initiative to migrate our core services from PHP to Node.js/NestJS. The migration wasn't just about adopting a new language—it was about modernizing our technical foundation to support anticipated 3x traffic growth. Achieved 20% database load reduction through careful query optimization and connection pooling, demonstrating that thoughtful architecture, not just infrastructure scaling, drives performance.
- Built analytics infrastructure on ClickHouse to support large-scale data processing across our platform. This involved optimizing complex SQL queries, designing efficient schemas, and understanding how analytical workloads differ from transactional ones—essential knowledge for building systems like Deel's that need both operational and analytical capabilities.
- Architected distributed communication workflows that reliably handled high-volume traffic while maintaining data consistency. Applied SOLID principles and established patterns for asynchronous processing with proper failure recovery and graceful degradation—the kind of systemic thinking that prevents cascading failures in distributed systems.

Software Development Engineer — SaaS Labs

Jan 2020 - Mar 2022

- Developed REST APIs and backend services for communication and sales-engagement products, building high-volume asynchronous workflows using Redis and Elasticsearch. Early experience handling production traffic at scale taught me the importance of careful system design and the consequences of architectural decisions.
- Contributed to CI/CD infrastructure and NGINX-based deployments, supporting staging environment management and release processes. Learned firsthand how reliable deployment practices prevent production incidents and enable teams to ship with confidence.

PROJECTS

Billeaf - Billing & Inventory Management SaaS

Indian shop owners—many without formal technical training—needed reliable billing and inventory management that was genuinely easy to use. Most existing solutions were overengineered and required expertise to navigate. The real challenge was building a powerful backend that could handle complex financial transactions while maintaining a UI simple enough for users who just wanted to track their business.

Built a full-stack SaaS using NestJS, React, and PostgreSQL. Invested significant effort in understanding how non-technical users think, designing an interface that felt intuitive rather than intimidating. On the backend, implemented ACID compliance and saga pattern for distributed transactions—ensuring that even during concurrent operations, the system never lost a single transaction. Outcome: Delivered a platform that balanced technical sophistication with exceptional usability, demonstrating that reliability and accessibility aren't mutually exclusive.

Velyn - Developer Monitoring & Error Analysis Platform

Production teams were drowning in error alerts. Engineers spent their days triaging issues, most of which were variants of problems they'd seen before. The constant firefighting meant systemic issues never got fixed—teams just got better at responding to symptoms.

Built a monitoring platform that understood error patterns, grouping related issues together and surfacing the underlying systemic problems. Designed the backend to handle massive error ingestion volumes and perform intelligent clustering in real time. Outcome: Reduced alert fatigue by 60% while helping teams identify and fix root causes instead of symptoms. This work taught me that excellent systems aren't just about handling load—they're about helping humans make better decisions.

EDUCATION

Gautam Buddha University | Integrated B.Tech + M.Tech in Computer Science | 2015 - 2020 | CGPA: 8.99/10