

Bishal KC

Sr. Full Stack Developer / Team Lead

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Summary

Backend Developer with 5+ years of hands-on experience building scalable, high-performance APIs and backend systems. Proven track record in integrating third-party services, optimizing databases, and deploying with Docker and AWS. Passionate about system design, automation, and performance optimization for high-traffic platforms.

Major Skills

- Languages & Frameworks:** TypeScript, Nodejs, Express, Nestjs, Nextjs, React, JavaScript.
- Tools & Technology:** Docker, Git/GitHub, Jira, Postman, Nginx, Apache, BullMQ, RabbitMQ, SQS, Kafka, S3.
- Database:** MySQL, PostgreSQL, MongoDB, Redis, DynamoDB, Amazon RDS.
- Cloud:** AWS, GCP, Digital Ocean, cPanels.

Experience

Global Diary – Social Media Project

Aug 2025 - Present

Full Stack Engineer / Team Lead

Involved on architectural planning, design, and technical decision-making to build a scalable and high performing social networking platform capable of supporting thousands of concurrent users. Developed core modules (Post, News, Marketplace, Events, Hire) and oversaw the full implementation lifecycle.

- Algorithm Design:** Planned sophisticated content discovery engines, including a graph-based "Suggested Profiles" system (mutual followers) and a weighted-scoreboard algorithm for "Trending Companies" to drive user engagement.
- Infrastructure & DevOps:** Streamlined deployment pipelines by configuring automated CI/CD workflows. Implemented Redis infrastructure for high-speed caching and session management, significantly enhancing system scalability and reducing latency.
- Performance & Security:** Optimized API throughput via strategic database indexing and query tuning. Integrated secure authentication protocols (Apple Sign-in) and led cross-functional troubleshooting to resolve frontend-backend integration issues.

Hyperlab I.T. Solutions

Oct 2024 – Aug 2025

Software Engineer / Team Lead

Led the project development team as TL, completing multiple projects including several e-commerce, CRM, and a hospital system with appointment booking and report generation. Deployed Node.js and Next.js projects on cloud (VPS), AWS S3 bucket, and integrated with logistics partners (Nepal Can Move, Gaubesi) and Nepali payment gateways (eSewa, Khalti, NPS).

- Project Leadership:** Successfully managed and delivered diverse projects, enhancing operational efficiency.
- Cloud Deployment:** Utilized VPS and AWS S3 for seamless project deployment and scalability.
- Integration:** Integrated logistics and payment solutions to support high-traffic, scalable systems.

A5 IT

July 2023 - Oct 2024

Backend Engineer

Got opportunity to work on eCommerce Automation project like [A5Sync](#) and ecommerce Store [A5 IT](#), streamlining inventory management, fulfilment workflows and sales processing. Worked on ETL data processing ensuring efficient synchronization across different marketplace eliminating manual bottlenecks which increased sales by 30% reducing cost of business by 42%. This is where I got opportunity to work with global talents and sharpen my skills.

- API Integration:** Expertise in eBay and Amazon Seller Account, Stripe Payment API, third party drop shipping vendors like Ingram, Synnex and DnH.
- Database Optimization:** Reduced database load and improved overall system performance by 25% by employing indexing, query optimization, and caching strategies.
- Cloud & DevOps:** CI/CD development on Digital Ocean, AWS S3 bucket management, and server automation.

Cashkr India

July 2020 – Jun 2023

Software Engineer / Team Lead

Developed a microservices-based architecture for [Cashkr](#), enabling the recycling and reuse of used electronic gadgets. This is where I have sharpen my knowledge of developing scalable systems and became team lead.

- Played key role in structuring and developing system using Nodejs and Nextjs.**
- Developed system design like Database Schema, Data Flow and Scalable Server Structure that matches the exact requirement of the company which eventually improved efficiency of traditional way of recycling gadgets by 45%.**

- Achieved Scalability that can handle 70k traffic a month using load balancer and improved performance of the system.
- Developed Secure and Robust REST APIs for high performance and seamless data flow.

Projects

Arena – Text to Podcast

Backend

Architected a conversational platform (FullStack) that transforms text-based chats into lifelike audio podcasts in real-time. Engineered an event-driven backend to handle concurrent message streams and audio synthesis with minimal latency.

- **GenAI Audio Pipeline:** Integrated ElevenLabs AI API to synthesize natural-sounding speech from user chats, enabling a seamless "text-to-speech" conversational experience with multi-voice support.
- **Real-Time Architecture:** Built a low-latency messaging infrastructure using Socket.IO for instant communication, coupled with BullMQ and Redis to offload heavy audio generation, successfully handling 100+ concurrent TTS streams while maintaining 99.9% system uptime.
- **Service Integrations:** Developed comprehensive platform utilities including OCR pipelines (Tesseract.js) for extracting text from images for audio conversion, and integrated Stripe to handle secure subscription payments.
- **Scalable Systems:** Leveraged AWS S3 with presigned URLs for secure, optimized storage of generated audio assets and implemented robust role-based authentication using Passport.js and JWT.

Digitology Academy –eLearning Platform

Fullstack

Developed a digital learning system for managing courses in Web Development, App Development, Graphics, SEO, and more, enabling streamlined course creation, student enrollment, and instructor management .

- Developed Website and admin panel using Nextjs to add instructors, manage student details, and track course enrollments.
- Implemented course management system with modular content and integrated video lessons.
- Utilized Node.js (JS), MySQL, and BullMQ for efficient queue processing and large data handling.

Hospital System and Appointment Booking

FullStack

Engineered a hospital and appointment booking system using Node.js and MySQL, implementing secure authentication and role-based access. Delivered a robust platform for patients to manage appointments and admins to oversee doctors, vacancies, and patient data with compliance.

- Designed and integrated role-based authentication ensuring secure patient and admin access.
- Developed appointment scheduling and management workflows for patients and administrators.
- Implemented doctor, vacancy, and patient data management modules aligned with compliance standards.

BhatBhatey – Vehicle Rental Platform

Fullstack (College Project)

Developed an e-commerce inspired motorbike rental platform that enables users to book vehicles based on their needs and comfort, with a dedicated admin panel for management.

- Built with Next.js, TypeScript, MongoDB and Tailwind CSS for a responsive and modern UI.
- Designed and developed an admin panel to manage vehicle listings and rentals.

LiquorStop – eCommerce Platform

Fullstack

Engineered a comprehensive e-commerce solution, featuring a high-performance storefront and a feature-rich admin dashboard including payment and delivery partner (Pathao) integration.

- Developed a scalable frontend using Next.js 15, TypeScript, and Tailwind CSS, integrated with a robust Node.js/Express backend using TypeORM for strict data modeling.
- Successfully integrated Nepal Payment Solution (NPS) to enable secure, local & internation transactions and seamless checkout and pathao for delivery service.
- Decoupled notification logic by architecting a standalone Email Microservice (Node.js) to ensure reliable delivery of transactional emails (orders, resets) without impacting main server performance.

Education

New Summit College

Bachelor in Computer Application

Feb 2021 - Dec 2025

Kathmandu, Nepal

Language

English, Nepali