

Balkrishna (Sandesh) Gautam

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Full-Stack Developer with 3+ years of experience building and maintaining production web applications using TypeScript, React, Next.js, Node.js, Express.js, and ASP.NET Core. Experienced in developing REST APIs, authentication and RBAC systems, payment integrations, database-driven applications, and performance optimizations for platforms serving 100k+ users. Also experienced in Python, FastAPI, and machine-learning applications, with a focus on building scalable backend systems and intuitive user interfaces.

EXPERIENCE

Aster Innovations (Pvt) Ltd

Full-Stack Engineer | May 2023 – Present

Software Developer Intern | Feb 2023 – Apr 2023

- Built and maintained a membership management system serving 100k+ members, implementing authentication and payment processing for subscriptions and renewals.
- Built and maintained a Hotel Management System end-to-end: designed the REST API and database schema in .NET, and built the React front end for room booking, availability tracking, and reporting dashboards.
- Integrated multiple payment gateways, handling both the client-side checkout flow and server-side transaction processing and webhook verification.
- Cut page load time by roughly 40% through backend query optimization and response caching, combined with front-end code splitting and lazy loading.
- Implemented role-based access control for the admin dashboard, covering authorization middleware on the backend and permission-based rendering on the frontend.
- Developed an NFC card platform end-to-end, covering card customization, order management, and user profiles using Next.js and a Node.js/Express API with PostgreSQL.
- Reviewed pull requests, mentor junior developers, and collaborate with product and design teams to translate requirements into database schemas and API contracts.

PROJECTS

- **AWS Resource Mapping System - React, Node.js/Express, PostgreSQL**
 - Developed an AWS resource mapping platform that **discovers and visualizes cloud resources** like EC2, S3, Lambda and RDS across multiple AWS accounts.
 - Created a dynamic mapping interface using **React Flow** and REST APIs.
 - Built a secure **Node.js** backend using **AWS SDK** and IAM AssumeRole for resource access.
- **E-Commerce Platform - Sports Equipment - Next.js, Node.js/Express, PostgreSQL**
 - Developed a full-stack sports equipment commerce platform spanning an **online storefront, admin dashboard, and in-store POS**, with a shared backend, **inventory, and order management system**.
 - Implemented **RBAC** for multiple admin roles and a **customer management** system for order history and accounts.
 - Built the POS flow for in-store sales, syncing with the same inventory and order system as the online storefront.

- **CVD Risk Assessment System** — *Python, FastAPI, React, Machine Learning*
 - Built a cardiovascular disease risk assessment system, training and **manually tuning 5 machine learning models** to predict patient risk.
 - Built a **FastAPI backend** serving model predictions and a React frontend for clinicians to interact with results.
 - Implemented **patient registration and tracking**, storing patient history alongside risk assessments.
 - Integrated an **AI chatbot** into the platform to help patients and clinicians interact with the system conversationally.

EDUCATION

Amrit Science Campus (ASCOL), Tribhuvan University

B.Sc. in Computer Science and Information Technology (B.Sc.CSIT)

Kathmandu, Nepal | 2022 – 2026

TECHNICAL SKILLS

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| ● Languages | JavaScript, TypeScript, Python, C#, C/C++, HTML, CSS |
| ● Frontend | React, Next.js, Redux Toolkit, TanStack Query, React Flow |
| ● Backend | Node.js, Express.js, ASP.NET Core, Entity Framework, FastAPI |
| ● APIs & Architecture | REST APIs, Webhooks, Authentication, RBAC |
| ● Databases | PostgreSQL, MySQL, SQL Server, MongoDB |
| ● Styling | Tailwind CSS, Bootstrap, SCSS |
| ● Tools | Git, GitHub, GitLab, Docker |