

Nishan Pokharel

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Full-Stack Software Engineer with expertise in Node.js, Express.js, Nest.js, React.js, and API-driven architectures (REST APIs, GraphQL, gRPC). Proficient in building scalable, high-performance applications and integrating cloud services like AWS S3. Adept at microservices architecture, database design, and cross-functional collaboration. Committed to continuous learning and leveraging the latest technologies to deliver robust solutions.

WORK EXPERIENCE

SOFTWARE ENGINEER

11/2024-Present

Innovate Tech

Baluwatar, Kathmandu

- Developed and optimized full-stack features for the **MySecondTeacher** platform using React, Node.js, and microservices architecture, and managed 7+ repositories and integrated GraphQL, gRPC, and REST APIs for seamless functionality.
- Upgraded 3-4 projects from React 16/17 to React 19, modernized dependencies, updated React Router DOM to the latest version, and migrated Material UI from v4 to v7, improving performance, accessibility, and user experience.
- Designed and implemented a nested bucket management system for exam/test questions, which enabled the creation, updating, deletion, movement, and duplication of parent and child buckets.
- Worked on bulk import and export functionality to process Excel sheets for importing and exporting 1000+ questions and related data across multiple files and worksheets at a time, and ensured the imported and exported data was properly stored, tracked, and offered to the user.
- Resolved frontend and backend issues across multiple repositories and collaborated with cross-functional teams to enhance code quality, system stability, and performance.

NODE.JS INTERN

08/2024-11/2024

Innovate Tech

Baluwatar, Kathmandu

- Developed an **HRM - Asset Management system** (similar to Google Drive), which enabled file uploads, nested folder creation, and secure resource sharing with access control, using MongoDB for schema design and AWS S3 with pre-signed URLs for efficient file and resource management.
- Initiated and worked on **HRM - Wiki Service** (similar to Wikipedia) by setting up project infrastructure with TSOA, designing and implementing PostgreSQL database schemas, and developing features for content creation and sharing.
- Gained expertise in microservices architecture, cloud storage solutions, and scalable backend systems through hands-on contributions and collaboration across multiple teams.

BACKEND INTERN

02/2024-08/2024

Rivia Infosys

Bagbazzar, Kathmandu

- Developed scalable backend solutions using JavaScript, TypeScript, Node.js, Express.js, and Nest.js, with a focus on the maintainability and efficiency of the **Edxplor** platform.
- Contributed to designing and implementing PostgreSQL database schemas using TypeORM, for both the **Edxplor** and **Hrxplor** platform, which helped to optimize query performance and ensured data integrity.
- Used Strapi for content management, integrated Swagger for API documentation, and integrated Docker for streamlined development and deployment across multiple projects.
- Utilized Trello for project management and contributed to agile workflows for timely delivery of features.

EDUCATION

BSC (HONS) COMPUTING

2022-2025

Islington College
London Metropolitan University

Kamalpokhari, Kathmandu

A-LEVELS

2019-2021

British Model College
Cambridge University

Thapathali, Kathmandu

SECONDARY EDUCATION EXAMINATION (SEE)

2018

Siddhartha Vanasthali Institute
Nepal Education Board (NEB)

Banasthali, Kathmandu

SKILLS

Technical Skills

- **Programming Languages:** JavaScript, TypeScript, SQL, Python
- **Backend Technologies:** Node.js, Express.js, Nest.js, FastAPI, TSOA, WebSocket
- **Frontend Technologies:** React.js, Material UI, HTML, Vanilla CSS, Bootstrap, Tailwind CSS
- **Databases:** PostgreSQL, MongoDB, MySQL, SQLite, Oracle SQL
- **Tools & Platforms:** Docker, Strapi, Swagger, Git, GitHub, GitLab, Trello, Wrike
- **API & Web Services:** RESTful APIs, GraphQL, gRPC
- **Operating Systems:** Windows, Linux, macOS
- **Methodologies:** Agile Development, Microservices Architecture, MVC Design Pattern

Soft Skills

- Problem-solving, Technical Communication, Time Management, Creativity, Leadership

PERSONAL PROJECTS

OPEN-ML

Technologies used: React 19, Node.js, FastAPI, PostgreSQL, AWS S3, Tailwind CSS, Microservice Architecture

- Developed a **no-code machine learning platform** for students, professionals, and non-professionals, which offers dataset uploads to AWS S3, preprocessing, feature engineering, training of classification and regression algorithms, model evaluation, testing, and visualization without coding expertise.
- Architected a secure microservices infrastructure with a Node.js backend for JWT-based user authentication and task routing, and a FastAPI backend for executing ML operations, including training and evaluating 15+ machine learning models.
- Delivered intuitive user interfaces with comprehensive documentation and a demo video, supporting custom dataset uploads, data visualization, data preprocessing, feature engineering, model training, model evaluation, model download, and testing with custom inputs, all secured by JWT authentication.

SERVICE & AWARDS

- Volunteer, Food Donation and Awareness Campaign, COVID-19 Pandemic, 2021
- General Member, JCI Kakani, 2022 – 2023
- General Member, Rotaract Club of Rudramati-Babarmahal-Kathmandu, 2024 – 2025
- Board Member (Editor), Rotaract Club of Rudramati-Babarmahal-Kathmandu, 2025 – 2026