

Sabin Karki

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Professional Summary

Full-stack developer specializing in backend systems, experienced in building end-to-end web applications. Strong in API design, database systems, and backend architecture, with solid frontend development experience.

Technical Skills

Languages: Java, JavaScript, TypeScript
Backend: Spring Boot (REST APIs, Security, Data JPA)
Frontend: React, Tailwind CSS, Zustand
Database: PostgreSQL, MySQL
Tools: Git, Docker, Podman, Postman

Projects

MindSpace - AI Study Platform

github.com/Sabin-Karki/MindSpace

Spring Boot + React + TypeScript + PostgreSQL + Docker

- Built an AI-powered learning platform enabling users to interact with their documents and generate study materials automatically
- Developed a RAG-based system using PostgreSQL (pgvector) for semantic search and accurate context retrieval from uploaded files
- Integrated Google Gemini API to generate flashcards, quizzes, reports, podcast style audios and summaries from uploaded documents
- Implemented JWT authentication with Spring Security to isolate user data and manage secure sessions
- Built a React + TypeScript frontend with Zustand for state management and real-time chat interactions
- Containerized the application using Podman to orchestrate frontend, backend, and database services

Finance Tracker

github.com/Sabin-Karki/Finance-Tracker

Spring Boot + React + Tailwind CSS + Docker

- Developed a personal finance application to help users track spending, manage budgets, and gain insights into financial habits
- Built RESTful APIs for transactions and budgets using Spring Boot and JPA with input validation for data integrity
- Implemented JWT-based authentication with Spring Security for secure, user-specific data access
- Built a React + Tailwind CSS frontend managing dynamic state and rendering interactive charts (e.g., pie charts) to visualize spending patterns and financial summaries in real time

MediFlow - Healthcare Data Pipeline

github.com/Sabin-Karki/MediFlow

Spring Boot + Spring Data JPA + PostgreSQL

- Built a scalable healthcare data pipeline to process and standardize records from multiple sources
- Developed an asynchronous CSV processing system to handle large datasets without blocking application performance
- Implemented a database-driven field mapping system to normalize inconsistent input formats from different hospitals
- Applied the Strategy pattern to modularize processing logic for different healthcare record types
- Wrote unit tests with JUnit and Mockito to ensure reliable parsing, validation, and transaction handling

Education

Bachelor of Computer Applications

Expected Graduation: 2027

Nepathya College, Butwal

Additional Information

- Consistent learner with habit of building and refining projects beyond initial implementation
- Strong attention to code quality, with focus on readability, structure, and long-term maintainability