BIBEK THAPA

📞 (+977 9749489775)　✉ bibekthapa00f@gmail.com　 github.com/BibekThapa1　💼 portfolio

in linkedin.com/in/bibek-thapa-62823b288

Skills

Languages: Python, JavaScript, SQL, TypeScript, C

Technologies & Tools: Django, Node.js, Django Rest Framework, Django Tenants, Docker, ReactJs, NextJs, Websockets, AI, ML, LangChain, CICD, Github Actions

Database: PostgreSQL, MongoDB, MySQL

Work Experience

Youth IT　　　　　　　　　　　　　　　　　　　　　　　　　**Sep 2024 – Present**
Backend Developer & DevOps　　　　　　　　　　　　　　　　　　　*Itahari, Sunsari*

- Designed and developed a SaaS product from scratch using Django, Django Rest Framework, and Django Tenants, focusing on scalable multi-tenant architecture, secure authentication, and role-based access control.
- Built and maintained RESTful APIs with proper validation, error handling, and clean structure to support smooth communication with frontend and mobile applications.
- Set up and managed CI/CD pipelines on DigitalOcean using GitHub Actions, Docker, docker-compose, and PM2, enabling automated testing and reliable production deployments.
- Containerized backend services and supporting components such as PostgreSQL using Docker, ensuring consistency across development, staging, and production environments.
- Led a small development team by reviewing code, guiding architectural decisions, and enforcing clean code practices based on Clean Architecture principles and PEP standards.
- Improved backend performance and reliability by optimizing database queries, refactoring existing code, and implementing background tasks using Celery for long-running processes.

Project Work

Vaidhya Sewa | Live

- Led a small team of developers in a SaaS project, reviewing code, guiding architectural decisions, and enforcing clean code principles based on Clean Architecture concepts by Uncle Bob and also following PEP guidelines.
- Designed and implemented role-based access control for multiple user roles including admin, receptionist, lab staff, and patients using stateless JWT-based authentication.
- Structured backend services to support core healthcare workflows such as patient management, lab operations, and administrative processes in a scalable and maintainable way.
- Containerized application services, databases, and Redis using Docker to ensure consistent development, testing, and production environments.
- Set up CI/CD pipelines for both frontend and backend repositories, enabling automated builds, testing, and reliable deployments while reducing manual release errors.

EPSKorean – Korean Exam Service | Live

- Built a multi-tenant online exam platform allowing institutes to register, create and manage exams, and handle student registrations with proper tenant-level data isolation.
- Worked as a **Full-Stack Developer**, developing backend services using Django and frontend interfaces using React with TypeScript, along with deployment and server management on **DigitalOcean**.
- Implemented multi-tenancy using the **django-tenants** package, ensuring each institute operates on an isolated database schema for improved security and scalability.
- Developed core exam management features such as exam creation, scheduling, student permissions, and access control aligned with real-world institute workflows.
- Implemented secure JWT-based authentication and optimized API performance to handle concurrent users during active exam periods without impacting system stability.

AI Assistant - Chat (Personal)| Live

- Built an Intelligent AI Chatbot – From terminal scripts to a stunning web interface! Transformed my LangChain-based chatbot (originally terminal-only) into a beautiful Streamlit web app with real-time conversation capabilities.
- Key Features: Real-time chat with conversation memory, Mindblowing gradient UI with animated message bubbles, Live chat statistics and message tracking, Fully responsive design, Fast AI responses with error handling, Context-aware conversations using LangChain messages Tech Stack: Python, Streamlit, LangChain, OpenRouter, GPT-3.5-turbo

Education

Sukuna Secondary School   **2021 − 2023**
Higher Secondary Level   *Itahari, Sunsari*

- Computer Science — **GPA: 3.22**

Sukuna Multiple Campus   **Expected Graduation: 2027**
Bachelor in Information, Communication and Technology Education (BICTE)   *Itahari, Sunsari*

- Courses: Software Engineering, Database Management Systems, Operating Systems, Computer Architecture, Model-Based Programming, Discrete Structures, Data Structures and Algorithms