

DIPESH THAPA

Kathmandu, Nepal

+977 9841441297 | dipeshthapa.codes@gmail.com

thapadipesh.com.np | github.com/DipeshJungThapa | linkedin.com/in/dipeshjungthapa

SUMMARY

Software developer with practical experience building scalable REST APIs, implementing complex authentication workflows (JWT, Google OAuth), and deploying applications to production. Strong focus on API design, asynchronous task management (Celery/Redis), and Linux-based full-stack development.

SKILLS

- **Languages:** JavaScript (ES6+), Python, SQL (MySQL/PostgreSQL), C++, Java
- **Backend:** Django REST Framework, FastAPI, Node.js, Celery, Redis, JWT, OAuth 2.0
- **Frontend:** React.js, Tailwind CSS, shadcn/ui, Progressive Web Apps (PWA), HTML/CSS
- **Tools & Platforms:** Git, Linux, Docker, Postman, VS Code, Vercel, Render
- **Cloud:** AWS Cloud Foundations, AWS Cloud Architecting, Cloud-native architectures

PROJECTS

- **Support Escalation Engine** Jan 2026
React, Django REST Framework, Celery, Redis, PostgreSQL
 - Built a ticket management system with a robust State Machine for ticket lifecycle management (Open, In Progress, Escalated, Resolved).
 - Implemented an automated escalation system using **Celery** and **Redis** to trigger notifications based on idle time and priority thresholds.
 - Integrated **JWT Authentication** and **Google OAuth 2.0** for secure, multi-provider user login and session management.
 - Designed a responsive dashboard with real-time status updates and priority-based filtering using **React** and **Tailwind CSS**.
- **WeatherWave – ML-Integrated Forecasting App** Dec 2024 – Jan 2025
React, Django REST Framework, scikit-learn, NASA POWER API, PWA
 - Developed a localized weather forecasting system across all 77 districts of Nepal using a **Random Forest** regression model.
 - Achieved high predictive accuracy with **MAE of 0.424°C** and an **R² score of 0.9934**, outperforming standard persistence forecasting.
 - Integrated real-time meteorological data with offline-ready **PWA** features like service workers and caching.
 - Published research paper on the system's architecture and performance in the ICICSET 2025 journal.
- **LAN Chat Room with File Transfer** 2023 - 2024
C++, Socket Programming, MinGW
 - Developed a multi-client LAN chat application using **C++** and **Socket Programming** for high-performance communication.
 - Implemented reliable file transfer protocols and a user-identification system for seamless interaction between multiple users.
 - Optimized build processes for Windows environments using MinGW.

PUBLICATIONS

- **WeatherWave: A Machine Learning-Integrated Web Application for Localized Weather Forecasting in Nepal**
R. Nepal, **D. Thapa**, et al. *Proceedings of International Conference on Innovation in Computing, Science, Engineering and Technology (ICICSET)*, Vol. 2, Issue 1, Dec 2025. [Link]

EDUCATION

- **Nepal College of Information & Technology, Balkumari** 2022 – Present
Bachelors in Software Engineering (Expected 2026)
- **Trinity Int'l College, Dillibazar, Kathmandu** 2020 – 2022
+2 in Science

CERTIFICATIONS

- **AWS Academy Graduate** – Cloud Architecting
- **Postman API Fundamentals Student Expert**
- **AWS Academy Graduate** – Cloud Foundations