SAKAR DAHAL

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SUMMARY

Final year engineering student(awaiting result) with a deep interest in computer science with hands-on experience in full-stack development through personal projects. Proficient in Python, Django and React with focus on building API driven applications and integrating machine learning features in the web platform.

EDUCATION

BE in Electronics, Communication and Information Engineering
Institute of Engineering Thapathali Campus • 2025

+2 Science in Physics Stream
Kathmandu Bernhardt Secondary School • 2021

SKILLS

Languages : Python | Javascript | HTML | CSS | C++

Framework and Libraries: Django | Django Rest Framework | Django ORM | React | NodeJS

Machine Learning: Image Processing | MobileNetV2

Cloud Platform: Microsoft Azure

Databases: SQLite | PostgreSQL

Tools and Technologies: Git, Github | Postman | Swagger

PROJECTS

Detection and Prevention of Citrus Diseases:

- Developed a citrus disease detection system using a mobile app with ResNet for feature extraction and MobileNetV2 for classification with confidence scoring.
- Integrated RAG-based chatbot using LLaMA 3.2 11B vision model for image based analysis and prevention guidance, supported by custom agricultural knowledge base.
- Built a website with React for frontend, including user authentication (login/register) for access control.

API for Book Review Application:

- Designed and implemented a Django REST Framework API supporting user authentication (registration, login, password change/reset) with email verification.
- Integrated custom permission controls using API Views to restrict access based on user roles where users can add books and reviews, delete their reviews and book owners can remove their books.

URL Shortening Application:

- Built a full-stack URL shortening service with DRF generic views and a custom React frontend with authentication using Django and client-side routing using React Router.
- Used React state management and reusable components to ensure clean, scalable code.