RUBINA DANGOL MAHARJAN

AI ENGINEER | FULL STACK DEVELOPER

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https://github.com/RUBY-DANGOL   Ruby | Portfolio   https://www.linkedin.com/in/rubina-dangol-maharjan-6036692aa/

I'm a B.Tech student in Artificial Intelligence at Kathmandu University. I specialize in full-stack development with React, FastAPI, and MySQL, and use Python for AI and data-driven projects. I am Passionate about AI/ML, and Robotics.

AREA OF EXPERTISE

Data Collection	AI Model Development	Backend
UI/UX design	Data Analyst	Data Base design/ dev

AWARDS

- **Best presenter of Global IME Bank AI/ML Hackathon 2025.** We introduced "DocLipi" An Intelligent Document Classifier and OCR Solution by combining the power of image classification and Vision Large Language Models to accurately OCR and extract structured data from Nepali and English documents.
- 1nd **Runner up of Jiffy Hackathon.** We redesigned the current JIFFY APP adding features like AI food Recommendation, AR Food Menu Viewing, Games and reel section to make the app more interactive.

PROJECTS

Feather Finder(Bird classification app)   July 2024 - November 2024

- FeatherFinder makes use of deep learning with pre-trained models, such as DenseNet-121, ResNet-152, and VGG16. It was trained on the dataset of 62 species of birds, each with approximately 1,500 images for training and 150 for testing. The project was deployed using Flask for backend, which made it more accessible and efficient for users.
- Result: ResNet-152 at 86.54% validation accuracy, DenseNet-121 at 88.29%, and VGG16 at 81.04%. Combining the three models into an ensemble achieved an even higher accuracy of 89.12%.

DocLipi (Desktop app for "Document Classification & Text Extraction")   May 1–2, 2025

- An Intelligent Document Classifier and OCR Solution by combining image classification and Vision Large Language Models to accurately OCR and extract structured data from Nepali and English documents.
- Build in Java, that processes pdf and images (jpg, png).
- For AI we used densenet, Gemma model for ocr and chatbot.
- For database we used MySQL

HealthGuardian | DementiaBot   April 2025

- DementiaBot: The bot runs on Python with FastAPI, Google Gemini, WebSockets, OpenCV, and YOLO v8. It track and follow dementia patients and interact with them as an AI therapist.
- HealthGuardian: the companion app is built using React Native for remote monitoring, video calls, and scheduling.

TomatoBot: Bringing AI to Agriculture!   December 2024 - April 2023

- An intelligent, real-time tomato detection and harvesting system designed to enhance agricultural efficiency through automation
- Built on a Raspberry Pi 4, integrated with a 1080p Full-HD camera and SG90 servo motor, TomatoBot utilizes deep learning-based object detection to classify tomatoes as ripe or unripe—optimizing the harvesting process and reducing manual labor.

EDUCATION

Science   2021 - 2023

Holy vision higher Secondary School
- Pure science major in +2

Bachelor of Technology in Artificial Intelligence   nov 2023 - Recent

Kathmandu University
- Recent gpa - 3.5

ADDITIONAL INFORMATION

- **Languages:** English, Nepali, German.
- **Hobby:** Painting, Sketching
- **Certifications:** Certificate of Excellence awarded for the research paper titled "Classifying Images/PDFs using Computer Vision Techniques", Postman API Fundamentals Student Expert.