

Indra Prasad Sapkota

Computer Engineering Student

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LINKS: LinkedIn, Github

PROFILE

I am a final-year Computer Engineering student with a strong focus on deep learning, large language models, and computer vision. I have hands-on experience re-implementing state-of-the-art LLMs model (LLaMA-3 and Pali-Gemma) and computer vision applications along with deployment and backend technologies. I aim to pursue a career in AI research and engineering, working on scalable and impactful intelligent systems.

EDUCATION

Bachelor in Computer Engineering Pashchimanchal Campus, IOE, TU Apr 2022 — Apr 2026

Currently in the 4rd year of my course with an aggregate of around 84% till now.

High School SOS Hermann Gmeiner Secondary School Aug 2018 — Aug 2021
Grauduated with an 3.7 GPA with A+ in Maths and Physics.

PROJECTS

Llama3.1 8b model implementation

Re-implemented every model elements of LLM from tokenizer to transformer model with grouped attention according to llama paper from scratch. Finally tested inference with the open source weights from huggingface.

https://github.com/bishal2059/llama3_8b_build

Zero Shot Voice clonning - Swarlekha

Developed an zero shot voice cloning and text to speech model for both English and Nepali language using resemble AI chatterbox model with T3 language model, s3gen audio model. Created custom tokenizer and finetune on our custom dataset.

<https://github.com/bishal2059/swarlekha>

Plant Care Mobile App — Disease Detection in Plant Dec 2024 — Mar 2025

Built project regarding the diseases detection in cauliflower plant using YOLO v8 model; with our own collected dataset from field which provided result of mAP around 0.3 and was deloyed in React Native mobile app with Node js Backend with the features like real time detection and voice based communication along with otp verification and cloud integration.

It was also feature by **Techpana**: <https://techpana.com/2025/151153>

<https://github.com/bishal2059/plantcare>

Vision LLM

Re-implemented google Pali Gemma vision LLM model from scratch which contains sliglip encoder model to generate image embeddings and gemma langauge model for conditional gen-

eration and tested its inference using weights from huggingface.

https://github.com/bishal2059/vision_lm

Object Detection using YOLO v8 model

Jun 2024

Built this object detection project uTECHsil (traditional items detection) as part of the YANTRA Hackathon, where we used YOLO v8 model and trained it with our custom dataset collected by scraping the internet with result of mAP50 of around 0.9 and deployed using flask and React with real time detection capability.

<https://github.com/bishal2059/uTECHsil>

Sambad - discord like chat app

Developed a discord like chat app using Next js and MySQL. It uses web socket for normal chat, creating chat servers, also includes functionality of audio and video chat using livekit. It provides authentication system and uses tailwind for designing.

<https://github.com/bishal2059/sambad>

Marketplace - ecommerce website

Developed a full stack web app using MERN stack including full authentication system, Stripe API for payment and modern web development tools and was further hoisted on render.

<https://marketplace-bmoj.onrender.com/>

<https://github.com/bishal2059/marketplace>

EXTRA-CURRICULAR ACTIVITIES

Global IME Bank National AI/ML Hackathon

Apr 2025

Achieved third position in national level AI/ML hackathon by Global IME bank where we were able to build revenue prediction model using real world dataset.

Participation in ANAIS V By NAAMI

Dec 2024 — Jan 2025

It was an Annual AI School organized by NAAMI where we learned about many AI technologies from industries experts and professors on topics like Graph neural network, 3d reconstruction and large language models.

Mentor in AI Bootcamp

Aug 2025

Currently teaching students in college who are starting in the field of AI, conducted in collaboration with ICES.

First place at project demonstration at Innosphere

Jun 2025

Achieved first place in project demonstration competition at Pokhara University where we demonstrated our cauliflower disease detection app called Plantcare.

Participation in ANAIS IV By NAAMI

Jun 2023 — Jun 2023

It was an Annual AI School organized by NAAMI where we learned about many AI technologies from industries experts and professors on topics like Geometric deep learning, computer vision and NLP.

Mentorship Program by ICES at college

Dec 2022 — Jan 2023

Built the marketplace project (e-commerce web app with features from jwt authentication to stripe payment integration) during this program and presented to the audiences.

Yantra Hackathon - Second place

Jun 2024

Built a simple object detection model (uTechsil) during this hackathon where we achieved second place.

SKILLS

JavaScript Typescript MongoDB React Node.js React Native Docker Django
Python and ML Deep Learning Computer Vision Pytorch Tensorflow Huggingface
LLM Langchain and Langgraph RAG SQL Git MLOps and Agent workflow

CERTIFICATES

Machine Learning Specialization, DeepLearning.AI (Coursera) Oct 2023 — Feb 2024

Supervised Machine Learning: Regression and Classification

Advanced Learning Algorithms

Unsupervised Learning, Recommenders, Reinforcement Learning

Deep Learning Specialization, DeepLearning.AI (Coursera) Jul 2024 — Oct 2024

Neural Networks and Deep Learning

Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization

Structuring Machine Learning Projects

Convolutional Neural Networks

Sequence Models