

# SAURAV KARKI

## CONTACT

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## SUMMARY

- Experience with ML and DL libraries including TensorFlow, PyTorch, and scikit-learn for building and training machine learning models.
- Hands-on experience with classification, regression, and basic Natural Language Processing (NLP) tasks.
- Familiar with LangChain and LangGraph for building LLM-based applications, with a understanding of agentic AI concepts..
- Able to preprocess data, train models, and evaluate performance effectively.
- Passionate about exploring real-world AI applications and integrating AI into full-stack systems.

## EXPERIENCE

### AI Learners Community I (Aug 2023 -April 2025 )

(Herald College Kathmandu)

- Active member of an AI group in college where I worked with students who share the same interest in AI and machine learning.
- Took part in different AI projects that helped me learn by doing.
- Helped organize events like workshops and seminars to spread awareness about AI in college.

### Bajra Technologies I (Jul 2025 - Sep 2025)

(AI Trainee)

- Work and research on Machine Learning for 3 months at Bajra Technologies.
- Work as a team with other stack members (React, PM, Angular) to build project together
- Build a personal final project that takes English language as a input and produce Speech of Nepali translation. Build using pretrained model and fine-tuned it later for better result.

## PROJECTS

### RAG based AI Chat Assistant for e-Commerce (RAG, HuggingFace, FastAPI, Pinecone): [Link](#)

- An intelligent AI-powered customer support assistant for Casemellow, a mobile cover e-commerce store. This chatbot leverages Retrieval-Augmented Generation (RAG) to provide accurate, context-aware responses to customer queries about products, policies, orders and more.

### English to Nepali text-to-speech (fastAPI, openAI, Fine Tuning, Streamlit, HF) : [Link](#)

- A research-oriented, end-to-end Nepali text-to-speech (TTS) system built on Hugging Face Transformers + VITS-style models with a Streamlit UI and training utilities. Designed for experiments, fine-tuning on Nepali datasets, and simple integration into web apps.

### Neural Machine Translation (GRU) : [Link](#)

- A beginner-friendly, end-to-end language translation project built from scratch using PyTorch. This project supports translation from **English** → **German** and **English** → **Nepali** using a custom-trained Seq2Seq model with GRU.

### Movie Review Sentiment Analysis (RNN, LSTM, word2vec): [Link](#)

- This project implements and compares different neural network architectures for binary sentiment classification of movie reviews. The goal is to automatically determine whether a movie review expresses positive or negative sentiment using Natural Language Processing (NLP) techniques.

## **Facial Emotion Classification (CNN, Fine Tuning - ResNet50): [Link](#)**

- This project focuses on classifying facial emotions using Convolutional Neural Networks (CNNs). It utilizes a dataset of labeled facial images to train models capable of recognizing six basic emotions: Angry, Disgust, Fear, Happy, Sad, Surprise, and Neutral.

## **TECHNICAL SKILLS**

- ML/DL Frameworks: TensorFlow, PyTorch, scikit-learn
- NLP & LLM Tools: LangChain, LangGraph Hugging Face
- Core Concepts: Classification, Regression, NLP
- Others: Data Preprocessing, Model Evaluation

Extra:

- Backend: FastAPI, Express.js
- Database: PostgreSQL, MySQL, MongoDB
- Frontend: React, Next.js
- Version Control: Git and GitHub
- Others: Postman, PgAdmin

## **ACADEMIC HISTORY**

**Herald College Kathmandu | 2023 - 2025**

BSc(Hons) Computer Science

## **OTHER LINKS**

**GitHub :**     [LINK](#)

**LinkedIn :**   [LINK](#)

**Portfolio :**   [LINK](#)