

DRISTI SIGDEL

AI/ML ENGINEER

Samakhushi, Kathmandu Nepal

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SUMMARY

AI/Speech Engineer with hands-on experience building and fine-tuning speech (TTS/ASR), NLP, and machine learning systems. Skilled in effective communication and collaboration, time management, and delivering high-quality solutions with meaningful business impact. Passionate about learning and applying new technologies.

EXPERIENCE

Wiseyak Inc AI Speech Engineer

Kathmandu, Nepal
Dec 2025 – Jul 2026

- Fine-tuned TTS models (XTTS).
- Researched and implemented RLAI (Reinforcement Learning from AI Feedback) on the XTTS model.

Microware Computing and Consulting Machine Learning Engineer

Skill Rental, India
Feb 2024 – Dec 2025

- Researched ASR model architectures such as Conformer and Fast Conformer.
- Hosted ASR models on server infrastructure and calculated WER and CER for accented data.
- Fine-tuned ASR models, including NVIDIA's Parakeet ASR model.

Code Himalaya AI Developer

Lalitpur, Nepal
Mar 2023 – Dec 2025

- Built Rasa chatbots using slots, actions, and database integrations.
- Researched and implemented a Hugging Face Vision Transformer model for image classification.
- Built a search engine using Elasticsearch, including indices, mappings, optimized search queries, and analyzers.
- Built a chatbot using the Mistral LLM and the LangChain framework
- used YOLOv8 for object detection.

SKILLS

- Programming: Python, HTML/CSS, SQL, C
- Cloud Platforms: Amazon Web Services, Microsoft Azure
- Tools: VS Code, PyCharm, Jupyter Lab, Anaconda, Kaggle, MS Word, MS Excel, MS PowerPoint
- Certifications: Introduction to Data Engineering (Coursera, June 2023)

PROJECTS

Speech-to-Speech Bot

ASR/STT Research, NVIDIA Parakeet, Docker, FastAPI

Researched ASR and STT approaches and fine-tuned NVIDIA's Parakeet STT model. Dockerized the STT model and hosted it on a server using FastAPI.

Plant Disease and Pest Detection

AWS EC2, ResNet, Inception, PostgreSQL, FastAPI

Built a disease/pest detection model using ResNet and Inception, hosted via FastAPI for mobile use, with results retrieved from a PostgreSQL database.

Rasa Bot & LLM Chatbot

Rasa, PostgreSQL, Mistral AI, LangChain, FAISS, Flask, Docker

Built a portfolio chatbot using Rasa with conversation logging in PostgreSQL, and a separate LLM-based chatbot using Mistral AI with LangChain and FAISS retrieval; both exposed via Flask APIs.

Twilio Phone Call System

Twilio, LLM Integration, OpenAI Realtime API

Built a Twilio-based outbound phone call system integrating LLM-generated responses; tested OpenAI's Realtime API for the system.

EDUCATION

BSc (Hons) Computer Science

Nov 2019 – Nov 2022

Herald College Kathmandu, University of Wolverhampton

Executive MBA

Apr 2026 – Present

Kathmandu University School of Management