

SANGAM SILWAL

Lalitpur, Nepal | 9742487596 | sangamsilwal2062@gmail.com | [Github](#) | [Linkedin](#)

Second-year Electronics, Information & Communication Engineering undergraduate with a strong focus on Machine Learning and Natural Language Processing. Hackathon winner with hands-on experience building end-to-end ML systems — from transformer architectures to RAG pipelines — as well as backend web development

EDUCATION

Bachelor of Engineering – Electronics, Information & Communication Engineering

Institute of Engineering (IOE), Nepal | 4th Semester (In Progress)

SKILLS

Machine Learning / DL - PyTorch, TensorFlow, Scikit-learn, LSTM, Transformers, NLP, RAG, LangChain, LangGraph

Backend Development - Node.js, Express.js, Django, FastApi

Tools & Platforms - Git, GitHub, Docker, MIFlow, Optuna

Languages - Python (primary), Javascript, C++, C, Go

KEY ACHIEVEMENTS

- **Locus Hackathon 2026 — Winner (AI for Social Welfare)**

Competed in Nepal's largest engineering festival hackathon and won in the AI for Social Welfare category with project Setu, an AI-powered solution addressing real-world social challenges.

PROJECTS

Setu — Locus Hackathon 2026 Winner [github](#)

NLP · AI for Social Good · Hackathon

Winning project of the Locus 2026 Hackathon (AI for Social Welfare category). Built an AI-powered platform designed to bridge social gaps using natural language understanding and intelligent automation.

RAG with MCP Agent [github](#)

RAG · LLM · MCP · Retrieval-Augmented Generation

Implemented a Retrieval-Augmented Generation pipeline integrated with Model Context Protocol (MCP), enabling context-aware AI responses grounded in external knowledge sources.

Transformer Architecture from Scratch (En-Ne NM) [github](#)

Transformer · NMT · NLP · PyTorch

Built a complete Transformer model from scratch for English-to-Nepali Neural Machine Translation, implementing multi-head attention, positional encoding, and encoder-decoder architecture.

Image Captioning with LSTM [github](#)

LSTM · CNN · Computer Vision · NLP

Developed an image captioning system combining a CNN encoder with an LSTM decoder to generate natural language descriptions of images.

TextClassificationBenchmark

[github](#)

NLP · Transformer · Finetuning

Experimenting with sequence classification across architectures — from primitive TF-IDF and MLP baselines through convolutional and recurrent networks, up to fine-tuned transformers — benchmarked on the AG News 4-class topic dataset.