

Sulav Timilsina

Madi-5, Basantapur
Chitwan
Nepal

Website: sulavtimilsina.com.np

E-mail: sulav.timilsina@outlook.com

LinkedIn: <https://www.linkedin.com/in/sulavtimilsina>

Github: <https://github.com/sulavtimilsina>

Phone: +977 9845952051

EDUCATION

Bachelor's Degree in Computer Engineering November 2017 - April 2022
Pashchimanchal Campus, Institute of Engineering,
Tribhuvan University, Nepal

(10+2) in Science June 2015 - June 2017
SOS Hermann Gmeiner School Bharatpur, Bharatpur, Chitwan, Nepal

WORK EXPERIENCE

Palua.AI June 2022 - Present
Artificial Intelligence Engineer

- Trained a BERT(110 M Parameters) based Language Model in Nepali, with data scraped from Nepali News Sites.
- Developed the first-ever benchmark for Nepali NLP tasks inspired by GLUE Benchmark.
- Working on Active Learning for NLP to reduce the training data drastically.

PUBLICATIONS

1. Timilsina, S., Gautam, M., Bhattarai, B., NepBERTa: Nepali Language Model Trained on a Large Corpus, Asian Chapter of the Association of Computational Linguistics (AACL), 2022. ([PDF](#)) ([Project Site](#))

PROJECTS

[Transformer-based Model for Nepali Language Understanding](#)

- With about 14.5 GB of text data (0.8 Billion words) by scrapping the top 35 Nepali News Sites, a BERT base model (110 M parameters) was pre-trained from scratch on TPU v3-128.
- Finetuned on 5 different downstream tasks (NER, Sentiment Classification, Sentence Pair Similarity, Content Classification, POS Tagging).

[Single Image Super-Resolution](#)

- Implemented SR-GAN from scratch on Tensorflow.
- Used Wasserstein Distance with Gradient Penalty to enforce smooth training of the generator-discriminator network.

Mero Health

- Built an Android app for Hospital/Doctors Appointment
 - Used Flutter in frontend and Node JS in the backend with Mongo DB
 - Implemented Naive Bayes Algorithm for the recommendation of doctors as per the symptoms.
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TECHNICAL SKILLS

- Python with libraries used for machine learning and deep learning like *Pandas, Numpy, Scikit-Learn, Open-CV, Tensorflow, Huggingface, etc*
 - Cloud Computing with *Google Cloud Platform*
 - Deployment platforms like *Streamlit and Kubernetes*
 - Distributed training using *GPU and TPU*
 - Version Controlling with *Git*
 - Linux skills like shell scripting and familiarity with different Linux distributions
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HACKATHONS

- Winner of **LeapFrog Code Camp 2019**, a three-day event where my team presented a cheap EKG machine capable of detecting early signs of heart abnormalities leveraging the power of Deep Learning
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CERTIFICATES

- [Deep Learning Specialization](#) from deeplearning.ai on Coursera
 - **AI for Medicine Specialization** from deeplearning.ai on Coursera (On-Going)
 - [Winter School in AI](#) (11-Day Event) organized by [NAAMII](#), a non-profit research organization in Nepal
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AWARDS AND GRANTS

- **TPU Research Cloud** grant by Google Cloud Team, where I was offered a TPU v3-128 pod with unlimited usage for 90 days.
 - **Mahatma Gandhi Scholarship 2015**, provided by Indian Embassy in Nepal
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LANGUAGES

- Nepali: Native/ Bilingual Proficiency
 - English: Fluent/ Full Working Proficiency
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REFERENCES

- [Binod Bhattarai](#), Palua.AI, Senior Research Fellow, UCL
- [Laxmi Prasad Bastola](#), Assistant Professor, Tribhuvan University
- [Urbara Bhandari](#), Assistant Professor, Tribhuvan University