

Niraj Pahari

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EDUCATION

Kyushu Institute of Technology <i>Ph.D. candidate in Natural Language Processing</i>	Fukuoka, Japan Oct. 2021 – Present (Expected Graduation: Sept. 2024)
King Mongkut's Institute of Technology Ladkrabang <i>M.E. in Robotics and Computational Intelligence Systems</i>	Bangkok, Thailand Aug. 2019 – July 2021
Tribhuvan University <i>B.E. in Computer Engineering</i>	Kathmandu, Nepal Dec. 2010 – July 2014

EXPERIENCE

Shimada Laboratory, Kyushu Institute of Technology, Japan <i>Phd Researcher</i>	Oct 2021 – Present
<ul style="list-style-type: none">Studied of multiple encoder systems in multi-task and single-task settings for sentiment analysis in monolingual and code-mixed sentences respectively.Utilized of data augmentation and semi-supervised learning for handling data scarcity in code-mixed scenarios.Performed statistical tests (chi-squared and z-test) for testing the hypothesis for socio-linguistics behaviour of multilingual speakers in social media in context of Nepal.Published and presented multiple research papers in international journal and conferences.Technology/Tools used: PyTorch, Transformers, Scikit-learn, TextAttack, Numpy, Pnadas, Matplotlib, FlairNLP, NLTK, TextAttack, WandB, Doccano	
Robotics and AI Laboratory, KMITL, Thailand <i>Master's Researcher and Software Developer</i>	Aug. 2019 – July 2021
<ul style="list-style-type: none">Studied paraphrase identification using the features from word and sentence level embeddings.Developed full stack web application for vaccine management system for <i>Department of Disease Control, Thailand</i> with Django serving a REST API with React as the frontendDeveloped Industrial Robot module for the KRAI platform using <i>ROS MoveIT!</i> for interfacing <i>ABB IRB 1100</i> industrial robot with web interface.Technology/Tools used: Scikit-learn, NLTK, TextHero, Django-Rest Framework, React, ROS, Roslibjs	
Genese Solution Pvt. Ltd., Nepal <i>Software (Backend) Developer</i>	Jan 2015 – July 2019
<ul style="list-style-type: none">Wrote automation scripts for websites using <i>Request, BeautifulSoup, and Selenium</i>.Developed REST APIs for multiple web applications using <i>Django REST framework</i>Held the responsibility of working with various international clients remotely, and eliciting the requirements from the clients and implementing the solution.Certified with AWS Certified Developer - Associate (JXZ5MSMC2E1EQBC0).Technology/Tools used: Django-REST framework, Agile development, JIRA, Git, Celery, Requests, BeautifulSoup, Selenium, AWS, SQL	

ADDITIONAL EXPERIENCE

Robotics and AI Laboratory, KMITL, Thailand <i>Laboratory Instructor</i>	Aug. 2019 – July 2021
<ul style="list-style-type: none">Instructed laboratory courses for Industrial Robotics (ABB Robots), Mobile Robotics (ROS with Turtlebot), Python with Image Classification and Programming in C.Prepared laboratory course materials including the supervision of student projects for each course.Supervised exchange students from Indian university for 1 month exchange with KMITL.	
Soch College of IT, Nepal <i>Part-Time Lecturer</i>	July 2016 – July 2019
<ul style="list-style-type: none">Lectured undergraduate level courses: DBMS, Advanced-DBMS, and Artificial Intelligence.Prepared course materials for theory and practical sessions for each course including the supervision of student projects for each course.	

SKILLS

- **Languages:**
 - Fluent in English, Nepali, and Hindi
 - Basic conversation in Japanese and Thai
- Strong communication skills developed from presentation in academic conferences and teaching.
- Ability to work independently and in a team with experience in working on Agile framework.

PUBLICATIONS

- Pahari, N. and Shimada, K., (2024). Share What You Already Know: Cross-Language-Script Transfer and Alignment for Sentiment Detection in Code-Mixed Data. *ACM Trans. Asian Low-Resour. Lang. Inf. Process.*
- Pahari, N. and Shimada, K., (2024). Layer Configurations of BERT for Multitask Learning and Data Augmentation. *Journal of Advanced Computational Intelligence and Intelligent Informatics*
- Pahari, N. and Shimada, K., (2023). Language Preference for Expression of Sentiment for Nepali-English Bilingual Speakers on Social Media. *Sixth Workshop on Computational Approaches to Linguistic Code-Switching (CALCS-EMNLP2023 Workshop)*
- Zhu, C., Pahari, N. and Shimada, K., (2023). Multilingual Symptom Prediction by Simultaneous Learning using BERT. *2023 International Conference on Asian Language Processing*
- Pahari, N. and Shimada, K., (2023). Handling data scarcity in code-mixing using learning-based approaches. *13th International Congress on Advanced Applied Informatics (IIAI-AAI), IEEE*
- Pahari, N. and Shimada, K., (2022). Multi-task learning using bert with soft parameter sharing between layers. *Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS & ISIS)*, pp 1-6.
- Pahari, N. and Shimada, K., (2023). Character-level data augmentation on code mixed sentences for low-resource settings. *The 29th Annual Conference of the Association for Natural Language Processing (NLP2023)*, P1-6, pp 161-165.
- Zhu, C., Pahari, N. and Shimada, K., (2023). BERTを用いた多言語同時学習による疾患分類. *言語処理学会第29回年次大会(NLP2023)*, P1-7, pp 166-170.
- Pahari, N. and Kaitwanidvilai, S., (2021). Semantic similarity calculation using the features from pre-trained vector and sentence level embedding. *The 7th International Conference on Engineering, Applied Sciences and Technology (ICEAST)*, pp 218-226.
- Devkota, B., Miyazaki, H. and Pahari, N. (2019). Utilizing user generated contents to describe tourism areas of interest. *First International Conference on Smart Technology & Urban Development (STUD)*, pp 1-6.