

Simran Khanuja

PhD in Computer Science | Carnegie Mellon University

simran-khanuja.github.io @ khanuja.simran7@gmail.com github.com/simran-khanuja
[Google Scholar](https://scholar.google.com/citations?user=simran7k) twitter.com/simi_97k

Education

-	Carnegie Mellon University	Pittsburgh, Pennsylvania
Aug 2022	PhD in Computer Science (NLP), QPA: 4.08/4.00 Advisor: Prof. Graham Neubig	
Aug 2020	Birla Institute of Technology and Science, Pilani	Goa, India
Aug 2015	B.E. (Honors) Computer Science; M.Sc.(Hons.) Economics, CGPA: 8.81/10.00	

Experience

Aug 2025	Google DeepMind [🔗]	MTV, California
May 2025	Student Researcher Host: Dr. Lun Wang Project: Steering LLMs for Culturally Localized Generation	
Aug 2022	Google Research [🔗]	Bangalore, India
Aug 2020	Pre-Doctoral Researcher Advisors: Dr. Partha Talukdar, Dr. Sebastian Ruder, Dr. Alexis Conneau Projects: MuRIL, MergeDistill, Multilingual NSP for Assistant, FLEURS	
Jul 2020	Microsoft Research [🔗]	Bangalore, India
Jul 2019	Research Intern (Bachelor Thesis) Advisors: Dr. Sunayana Sitaram, Dr. Monojit Choudhury Projects: Code-Mixed NLU and NLI (GLUECoS), Adapting TULR for Code-Mixing	

Awards, Fellowships, Grants, Selected Talks

(Upcoming) MIT EECS Rising Star 2025 [🔗] Culturally Inclusive Multimodal Systems
(Upcoming) Invited Keynote: CEGIS @ ICCV 2025 [🔗] Culturally Inclusive Multimodal Systems
Rising Star in AI, AI for Science Symposium 2025, University of Michigan [🔗]
Imminent Translated Research Grant Recipient, 2025 [🔗] For Human-AI Platform on Image Transcreation
Invited Keynote: DemoDiv @ CVPR 2025 [🔗] Data collection and Evaluation efforts for Image Transcreation
Invited Keynote: AmericasNLP @ NAACL 2024 [🔗] Introducing task and Evaluation efforts for Image Transcreation
Best Paper, EMNLP 2024 [🔗] Introducing the new task of Image Transcreation for localizing multimodal content
CMU Waibel Presidential Fellowship, 2024-25
Best Paper, SLT 2022 [🔗] Introducing the largest multilingual speech-text dataset, FLEURS
National ICSE Topper, 2013 Rank 1 in the country for board examinations

Selected Publications

- [19] **Steering LLMs for Culturally Localized Generation**
[Simran Khanuja](#), Hongbin Liu, Shujian Zhang, John Lambert, Mingqing Chen, Rajiv Mathews, Lun Wang
Under Conference Submission [Preprint]
- [18] **HILITe: Human-AI Collaborative Framework for Image Transcreation**
[Simran Khanuja](#), Yutong Zhang, Aayush Bheemaih, ... Diyi Yang, Graham Neubig
Under Conference Submission [HCI+NLP@EMNLP '25]
- [17] **CAIRE: Cultural Attribution of Images by Retrieval-Augmented Evaluation** [PDF | code]
Arnav Yayavaram*, Siddharth Yayavaram*, [Simran Khanuja](#)*, Michael Saxon, Graham Neubig
Under Conference Submission [CEGIS@ICCV '25]
- [16] **Towards Automatic Evaluation for Image Transcreation** [PDF]
[Simran Khanuja](#)*, Vivek Iyer*, Claire He, Graham Neubig
Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics [NAACL '25]

- [15] **Pangea: A Fully Open Multilingual Multimodal LLM for 39 Languages** [[web](#) | [PDF](#) | [code](#) | [models](#)]
Xiang Yue*, Yueqi Song*, Akari Asai, ... [Simran Khanuja](#), ... Graham Neubig
International Conference on Learning Representations [ICLR '25]
- [14] **[Best Paper] An image speaks a thousand words but can everyone listen? On image transcreation for cultural relevance** [[web](#) | [PDF](#) | [code](#) | [talk](#)]
[Simran Khanuja](#), Sathyanarayanan Ramamoorthy, Yueqi Song, Graham Neubig
Conference on Empirical Methods in Natural Language Processing [EMNLP '24]
- [13] **[Best Paper Runner-Up] HILITE: Human-in-the-loop Interactive Tool for Image Editing**
Arya Pasumarthi, Armaan Sharma, ..., Diyi Yang, Graham Neubig, [Simran Khanuja](#)
2024 IEEE International Conference on Big Data (Undergraduate Symposium) [IEEE BigData '24]
- [12] **DeMuX: Data-efficient Multilingual Learning** [[PDF](#) | [code](#)]
[Simran Khanuja](#), Srinivas Gowriraj, Lucio Dery, Graham Neubig
Conference of the North American Chapter of the Association for Computational Linguistics [NAACL '24]
- [11] **GlobalBench: A Benchmark for Global Progress in Natural Language Processing** [[PDF](#)]
Yueqi Song, Catherine Cui, [Simran Khanuja](#), Pengfei Liu, ..., Graham Neubig
Conference on Empirical Methods in Natural Language Processing [EMNLP '23]
- [10] **Multi-lingual and Multi-cultural Figurative Language Understanding** [[PDF](#) | [code](#)]
Anubha Kabra*, Emmy Liu*, [Simran Khanuja](#)*, Alham Fikri Aji, ..., Graham Neubig
Annual Conference of the Association for Computational Linguistics [ACL '23 Findings]
- [9] **Evaluating Inclusivity, Equity, and Accessibility of NLP Technology: A Case Study for Indian Languages** [[PDF](#)]
[Simran Khanuja](#)*, Sebastian Ruder*, Partha Talukdar
European Chapter of the Association for Computational Linguistics [C3NLP | SIGTYP | EACL '23]
- [8] **[Best Paper] FLEURS: Few-Shot Learning Evaluation of Universal Representations of Speech** [[PDF](#)]
Alexis Conneau*, Min Ma*, [Simran Khanuja](#)*, Yu Zhang, ..., Ankur Bapna
IEEE Spoken Language Technology Workshop [SLT 2022]
- [7] **MuRIL: Multilingual Representations for Indian Languages** [[PDF](#) | [large](#) | [base](#)]
[Simran Khanuja](#), Diksha Bansal, Sarvesh Mehtani, Savya Khosla, ..., Partha Talukdar
[Media](#): [Economic Times](#) | [Indian Express](#) | [Google AI Blog](#) [Technical Report: Mar '21]
- [6] **MergeDistill: Merging Pre-trained Language Models using Distillation** [[PDF](#)]
[Simran Khanuja](#), Melvin Johnson, Partha Talukdar
Annual Conference of the Association for Computational Linguistics (Virtual) [Findings of ACL'21]
- [5] **GLUECoS: An Evaluation Benchmark for Code-Switched NLP** [[PDF](#) | [code](#) | [website](#)]
[Simran Khanuja](#), Sandipan Dandapat, Anirudh Srinivasan, Sunayana Sitaram, Monojit Choudhury
Annual Conference of the Association for Computational Linguistics (Virtual) [ACL'20]

Other Publications

- [4] **NaturalBench: Evaluating Vision-Language Models on Natural Adversarial Samples** [[PDF](#)]
Baiqi Li, Zhiqiu Lin, Wenxuan Peng, Jean de Dieu Nyandwi, Daniel Jiang, Zixian Ma, [Simran Khanuja](#), Ranjay Krishna, Graham Neubig, Deva Ramanan
Conference on Neural Information Processing Systems [NeurIPS '24]
- [3] **A New Dataset for Natural Language Inference from Code-mixed Conversations** [[PDF](#) | [data](#)]
[Simran Khanuja](#), Sandipan Dandapat, Sunayana Sitaram, Monojit Choudhury
International Conference on Language Resources and Evaluation [CALCS, LREC'20]
- [2] **Unsung Challenges of Building and Deploying Language Technologies for LRL Communities** [[PDF](#)]
Pratik Joshi, Christain Barnes, Sebastin Santy, [Simran Khanuja](#), Sanket Shah, Anirudh Srinivasan, Satwik Bhat-tamishra, Sunayana Sitaram, Monojit Choudhury, Kalika Bali
International Conference on Natural Language Processing, Hyderabad, India [ICON'19]
- [1] **Dependency Parser for Bengali-English Code-Mixed Data enhanced with a Synthetic Treebank** [[PDF](#) | [code](#)]
Urmi Ghosh, [Simran Khanuja](#), Dipti Misra Sharma
International Workshop on Treebanks and Linguistic Theories [TLT, SyntaxFest'19]

Academic Service

Lecturer CMU-11737 (Multilingual NLP) on Image-Text Modeling for Multilingual NLP ([slides](#))
Reviewer EMNLP'25, NAACL'25, ACL'25, EMNLP '23, ACL'23, MRL@EMNLP'21, TALLIP'20
Sub-Reviewer EMNLP'21, EMNLP'20, ACL'20

Volunteer Service

AI For Education In engagement with [Inspiring Teachers](#) to use my research to create educational content for children in Ghana. Also in engagement with [Linguistics Justice League](#) to help localize stories for children for their multilingual story app in 108 languages, using my research.

Talks and Interviews

“Image Transcreation for Cultural Relevance”

› [University of Edinburgh](#) March 2024

“Multimodality for Multilingual NLP: The need, an application, and open questions”

› [Google Research](#) | [Microsoft Research](#) | [IISc](#) | [Microsoft IDC](#) ([Slides](#)) January 2024

“Decode with Google”

› [Speaker List](#) | [Talk \(2:28:00 onwards\)](#) (registration required) [[🌐](#)] August 2022

“An Introduction to (Modern) TensorFlow”

› [CVIT Summer School, IIIT Hyderabad](#) [[🌐](#)] August 2021 (Remote)

“Journey into Research”

› [Rotaract Club, BITS Hyderabad](#) [[🌐](#)] January 2021 (Remote)

“ICSE National Topper”

› [India Times](#) | [Times of India](#) | [Indian Express](#) May 2013 (Pune, India)

Teaching and Leadership

Multilingual NLP (Graduate Course), CMU *Teaching Assistant* Fall '23

› TA for [11737-Multilingual NLP](#) at CMU, taught by Dr. Lei Li. Design assignments and guide course projects for teams.

Student Research Symposium, CMU *Co-Organizer* Aug '23

› Co-organizing the [student research symposium](#) at CMU, a LTI-wide event for students to share their research.

LTI LLM Hackathon, CMU *Co-Organizer* Apr '23

› Co-organizing the [LTI LLM Hackathon](#) at CMU!

AI Undergrad Mentorship Program, CMU *Mentor* Spring '23

› Mentor to undergraduate students starting out with NLP research at CMU.

Coffee Club Mentorship Program, Google *Co-Lead* July '21 - July '22

› Co-Lead of the Coffee Club program at Google India.

› Enabling women employees to seek mentorship from senior executives across Google.

An Introduction to (Modern) TensorFlow *Co-Instructor* Aug '21

› Conducted a hands-on Tensorflow tutorial session attended by **100+** members from Academia.

Fireside Chat with Jeff Dean *Host* Sep '20

› Hosted a Fireside Chat with Jeff Dean on his virtual Google India visit!

Student Mentorship

› OpenNLP Labs Summer Cohort [Miscellaneous]

› Arnav Yayavaram [BITS Pilani, Hyderabad]

› Siddharth Yayavaram [BITS Pilani, Hyderabad]

› Yueqi Kaylin Song [Undergraduate, CMU]

› Sathyanarayanan Ramamoorthy [MIIS, CMU]

› Srinivas Gowriraj [MIIS, CMU]

› Helen Wang [Undergraduate, CMU]