

Simran Khanuja

PhD in Computer Science | Carnegie Mellon University

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Education

-	Carnegie Mellon University	Pittsburgh, Pennsylvania
Aug 2022	PhD in Computer Science (NLP), QPA: 4.03/4.33 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 <u>Project:</u> 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 <u>Projects:</u> 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 <u>Projects:</u> Code-Mixed NLU and NLI (GLUECoS), Adapting TULR for Code-Mixing	

Awards, Fellowships, Grants, Selected Talks

BITS 30 Under 30 - Research Leaders [🔗]

MIT EECS Rising Star 2025 [🔗]

Invited Keynote: CEGIS @ ICCV 2025 [🔗] Evaluating Cultural Diversity in Generative AI

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*
European Chapter of the Association for Computational Linguistics (also at CEGIS@ICCV '25) [EACL '26]
- [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, Wenzuan 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 [LT, 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

- › Parin Pengpun [Undergraduate, CMU]
- › OpenNLP Labs Summer Cohort [Miscellaneous]
- › Arnav Yayavaram [BITS Pilani, Hyderabad]
- › Siddharth Yayavaram [BITS Pilani, Hyderabad]
- › Yueqi Kaylin Song [Undergraduate, CMU]
- › Sathyaranayanan Ramamoorthy [MIIS, CMU]
- › Srinivas Gowriraj [MIIS, CMU]
- › Helen Wang [Undergraduate, CMU]