

Varun Gumma

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Education

Present Aug 2025	Nanyang Technological University (NTU) Ph.D., School of Electrical and Electronic Engineering GPA: 5.0/5 Advisor: Prof. Soujanya Poria	Nanyang, Singapore
June 2023 Aug 2021	Indian Institute of Technology (IIT), Madras M.Tech. in Computer Science & Engineering GPA: 9.62/10 Dept Rank: 3 Teaching Exp: Pattern Recognition & Machine Learning, Linear Algebra & Random Processes, Fundamentals of Deep Learning Advisors: Dr. Raj Dabre, Prof. Mitesh Khapra	Chennai, India
Jun 2021 Aug 2017	Birla Institute of Technology and Science (BITS), Pilani B.E. in Computer Science, with Minor in Physics GPA: 9.14/10 Teaching Exp: Introductory Physics, Computer Programming, Discrete mathematics, Data Structures & Algorithms, Foundations of Data Science, Machine Learning Advisors: Prof. N.L. Bhanu Murthy, Prof. Barsha Mitra	Hyderabad, India

Experience

July 2025 May 2023	Microsoft Research [🌐] SCAI Center Fellow / Advisors: Dr. Kalika Bali, Dr. Sunayana Sitaram Worked on multi-dimensional evaluation of Large Language Models and building Machine Translation systems for low-resource languages.	Bangalore, India
Jul 2022 Jun 2022	National University of Singapore [🌐] Visiting Research Scholar / Advisor: Dr. Aditya Karanam Worked on developing Machine Learning and Deep Learning models to extract <i>suggestions</i> and identify <i>suggested-features</i> from noisy user comments using Name-Entity-Recognition.	Kent Ridge, Singapore
July 2019 May 2019	Defense Research & Development Organization-Research Centre Imarat [🌐] Student Intern Worked on building an Object Detection Model to identify cars in a given image.	Hyderabad, India

Publications

C=Conference, W=Workshop, J=Journal, A=arXiv (* = equal contribution, † = equal mentorship)

- [A.2] **IDEAgent: Agentic Quality-Diversity Search for Research Idea Generation**
Varun Gumma, Navonil Majumder, Soumitra Sinhaajari, Soujanya Poria
Arxiv e-Print [Arxiv]
- [C.11] **UPDESH: Synthesizing Grounded Instruction Tuning Data for 13 Indic Languages**
Pranjal A. Chitale, Varun Gumma, Sanchit Ahuja, Prashant Kodali, Manan Uppadhyay, Deepthi Sudharsan, Sunayana Sitaram
64th Annual Meeting of the Association for Computational Linguistics [ACL '26]
- [C.10] **OffTopicEval: When Large Language Models Enter the Wrong Chat, Almost Always!**
Jingdi Lei*, Varun Gumma*, Rishabh Bhardwaj*, Seok Min Lim, Chuan Li, Amir Zadeh, Soujanya Poria
14th International Conference on Learning Representations [ICLR '26]
- [C.9] **Towards Inducing Long-Context Abilities in Multilingual Neural Machine Translation Models**
Varun Gumma*, Pranjal A. Chitale*, Kalika Bali
2025 Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics [NAACL '25]

- [W.3] **Beyond Metrics: Evaluating LLMs’ Effectiveness in Culturally Nuanced, Low-Resource Real-World Scenarios**
Millicent Ochieng, [Varun Gumma](#), Sunayana Sitaram, Jindong Wang, Vishrav Chaudhary, Keshet Ronen, Kalika Bali, Jacki O’Neill
6th Workshop on African Natural Language Processing [AfricaNLP ’25]
- [A.1] **HEALTH-PARIKSHA: Assessing RAG Models for Health Chatbots in Real-World Multilingual Settings**
[Varun Gumma](#), Ananditha Raghunath, Mohit Jain[†], Sunayana Sitaram[†]
Arxiv e-Print [Arxiv]
- [W.2] **Contamination Report for Multilingual Benchmarks**
Sanchit Ahuja*, [Varun Gumma](#)*, Sunayana Sitaram
Evaluating Evaluations: Examining Best Practices for Measuring Broader Impacts of Generative AI [EvalEval ’24]
- [C.8] **PARIKSHA: A Large-Scale Investigation of Human-LLM Evaluator Agreement on Multilingual and Multi-Cultural Data**
Ishaan Watts, [Varun Gumma](#), Aditya Yadavalli, Vivek Seshadri, Manohar Swaminathan, Sunayana Sitaram
2024 Conference on Empirical Methods in Natural Language Processing [EMNLP ’24]
- [C.7] **Akal Badi ya Bias: An Exploratory Study of Gender Bias in Hindi Language Technology**
Rishav Hada, Safiya Husain, [Varun Gumma](#), Harshita Diddee, Aditya Yadavalli, Agrima Seth, Nidhi Kulkarni, Ujwal Gadiraju, Aditya Vashistha, Vivek Seshadri, Kalika Bali
7th Annual ACM Conference on Fairness, Accountability, and Transparency [FAccT ’24, **Best Paper**]
- [C.6] **METAL: Towards Multilingual Meta-Evaluation**
Rishav Hada*, [Varun Gumma](#)*, Mohamed Ahmed, Kalika Bali, Sunayana Sitaram
Findings of the Association for Computational Linguistics: NAACL 2024 [NAACL ’24]
- [C.5] **MEGAVERSE: Benchmarking Large Language Models Across Languages, Modalities, Models and Tasks**
Sanchit Ahuja, Divyanshu Aggarwal, [Varun Gumma](#), Ishaan Watts, Ashutosh Sathe, Millicent Ochieng, Rishav Hada, Prachi Jain, Mohamed Ahmed, Kalika Bali, Sunayana Sitaram
2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics [NAACL ’24]
- [W.1] **MunTTS: A Text-to-Speech System for Mundari**
[Varun Gumma](#), Rishav Hada, Aditya Yadavalli, Pamir Gogoi, Ishani Mondal, Vivek Seshadri, Kalika Bali
7th Workshop on Computational Methods for Endangered Languages [ComputEL’24]
- [C.4] **MAFIA: Multi-Adapter Fused Inclusive Language Models**
Prachi Jain*, Ashutosh Sathe*, [Varun Gumma](#), Kabir Ahuja, Sunayana Sitaram
18th Conference of the European Chapter of the Association for Computational Linguistics [EACL’24]
- [C.3] **Are Large Language Model-based Evaluators the Solution to Scaling Up Multilingual Evaluation?**
Rishav Hada, [Varun Gumma](#), Adrian de Wynter, Harshita Diddee, Mohamed Ahmed, Monojit Choudhury, Kalika Bali, Sunayana Sitaram
Findings of the Association for Computational Linguistics: EACL 2024 [EACL’24]
- [J.1] **IndicTrans2: Towards High-Quality and Accessible Machine Translation Models for all 22 Scheduled Indian Languages**
Jay Gala*, Pranjal A. Chitale*, Raghavan AK, [Varun Gumma](#), Sumanth Doddapaneni, Aswanth Kumar, Janki Nawale, Anupama Sujatha, Ratish Puduppully, Vivek Raghavan, Pratyush Kumar, Mitesh M. Khapra, Raj Dabre, Anoop Kunchukuttan
Transactions of Machine Learning Research [TMLR’23]
- [C.2] **An Empirical Study of Leveraging Knowledge Distillation for Compressing Multilingual Neural Machine Translation Models**
[Varun Gumma](#), Raj Dabre, Pratyush Kumar
24th Conference of the European Association of Machine Translation [EAMT’23]
- [C.1] **PAMMELA: Policy Administration Methodology using Machine Learning**
[Varun Gumma](#), Barsha Mitra, Soumyadeep Dey, Pratik Shashikantbhai Patel*, Sourabh Suman*, Saptarshi Das, Jaideep Vaidya
19th International Conference on Security and Cryptography - SECRIPT [SECRIPT’22]

Academic Service

Peer Reviewer ACL Rolling Review (ARR), ICLR ’25, ICLR ’26

Awards and Achievements

NTU Research Scholarship To pursue full-time PhD as an international student

Outstanding Reviewer For notable contributions as Peer Reviewer for EMNLP2024

IIT Madras STAR TA, 2021-2023 For outstanding contributions as a Graduate Teaching Assistant

GATE CS&IT, 2021 Secured an All India Rank of 159 with a score of 816/1000

BITS Merit Scholarship, 2018 For meritorious academic performance in the year 2017-2018