

# Varun Gumma




## Ph.D. Student | Nanyang Technological University

✉ varun230999@gmail.com     github.com/VarunGumma     Google Scholar  
 x.com/VarunGumma23     varungumma.github.io

## Education

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

## Experience

<b>July 2025</b> <b>May 2023</b>	<b>Microsoft Research</b>  SCAI Center Fellow   <b>Advisors:</b> Dr. Kalika Bali, Dr. Sunayana Sitaram Worked on multi-dimensional evaluation of Large Language Models and building Machine Translation systems for low-resource languages.	<b>Bangalore, India</b>
<b>Jul 2022</b> <b>Jun 2022</b>	<b>National University of Singapore</b>  Visiting Research Scholar   <b>Advisor:</b> 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.	<b>Kent Ridge, Singapore</b>
<b>July 2019</b> <b>May 2019</b>	<b>Defense Research &amp; Development Organization-Research Centre Imarat</b>  Student Intern Worked on building an Object Detection Model to identify cars in a given image.	<b>Hyderabad, India</b>

## Publications

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

- [A.2] **The Role of Synthetic Data in Multilingual, Multi-Cultural AI systems: Lessons from Indic Languages**  
Pranjal A. Chitale, [Varun Gumma](#), Sanchit Ahuja, Prashant Kodali, Manan Uppadhyay, Deepthi Sudharsan, Sunayana Sitaram  
Arxiv e-Print [Arxiv]
- [C.9] **Towards Inducing Long-Context Abilities in Multilingual Neural Machine Translation Models**  
[Varun Gumma](#)<sup>\*</sup>, Pranjal A. Chitale<sup>\*</sup>, 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  
6<sup>th</sup> 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<sup>†</sup>, Sunayana Sitaram<sup>†</sup>  
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  
*7<sup>th</sup> 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  
*7<sup>th</sup> 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  
*18<sup>th</sup> 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  
*24<sup>th</sup> 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  
*19<sup>th</sup> 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