

Shivani Kumar, Ph.D.

Postdoctoral Research Fellow at University of Michigan

📍 Ann Arbor, MI, USA | 🌐 [shivanik96.github.io](https://github.com/shivanik96) | ✉ kshivan@umich.edu | 📱 [shivanik96](https://www.linkedin.com/in/shivanik96)

RESEARCH INTEREST

My research interests lie into exploring how Large Language Models tackle RHETORICAL ANALYSIS, especially in conversations. I am interested in probing the three verticals of rhetoric: ETHOS, PATHOS, and LOGOS. For ETHOS, I'm excited to examine how cultural values, credibility, and trust shape dialogues. With PATHOS, I'm keen on understanding how emotions are managed and expressed in LLM interactions. And for LOGOS, I wish to analyze how these models craft and navigate logical arguments.

EXPERIENCE

- **University of Michigan** May 2024 - Present
Postdoctoral Research Fellow Ann Arbor, Michigan, USA
Advisor: Prof David Jurgens
Topic: Moral Values, Cultural Influence, and Large Language Models
- **Adobe Inc.** January 2023 - June 2023
PhD Intern Noida, Uttar Pradesh, India
Mentors: Dr. Sumit Bhatia, Milan Aggarwal
Topic: Improving the efficacy of Conversational Systems

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, P=PREPRINT

- [C.7] **Shivani Kumar**, David Jurgens. [Are Rules Meant to be Broken? Understanding Multilingual Moral Reasoning as a Computational Pipeline with UniMoral](#). *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025.
- [P.1] Johnathan Ivey*, **Shivani Kumar***, Jiayu Liu*, Hua Shen*, Sushrita Rakshit*, Rohan Raju*, Hao-tian Zhang*, Aparna Ananthasubramaniam*, Junghwan Kim*, Bowen Yi*, Dustin Wright*, Abraham Israeli*, Anders Giovanni Møller*, Lechen Zhang*, David Jurgens. [Real or Robotic? Assessing Whether LLMs Accurately Simulate Qualities of Human Responses in Dialogue](#). *ArXiv Preprint*, 2024.
- [J.6] **Shivani Kumar**, Sumit Bhatia, Milan Aggarwal, Tanmoy Chakraborty. [Dialogue Agents 101: A Beginner's Guide to Critical Ingredients for Designing Effective Conversational Systems](#) *Natural Language Processing (formerly Natural Language Engineering)*, 2024.
- [C.6] **Shivani Kumar**, Md Shad Akhtar, Erik Cambria, Tanmoy Chakraborty. [SemEval 2024–Task 10: Emotion Discovery and Reasoning its Flip in Conversation \(EDiReF\)](#) *The North American Chapter of the Association for Computational Linguistics (NAACL)*, 2024.
- [J.5] Prottay Kumar Adhikary, Aseem Srivastava, **Shivani Kumar**, Salam Michael Singh, Puneet Manuja, Jini K Gopinath, Vijay Krishnan, Swati Kedia, Koushik Sinha Deb, Tanmoy Chakraborty. [Exploring the Efficacy of Large Language Models in Summarizing Mental Health Counseling Sessions: A Benchmark Study](#) *Journal of Medical Internet Research (JMIR)*, 2024.
- [J.4] Priyadarshini Rai, Atishay Jain, **Shivani Kumar**, Divya Sharma, Neha Jha, Smriti Chawla, Abhijit Raj, Apoorva Gupta, Sarita Poonia, Angshul Majumdar, Tanmoy Chakraborty, Gaurav Ahuja, Debarka Sengupta. [Literature mining discerns latent disease-gene relationships](#) *Bioinformatics*, 2024.
- [C.5] **Shivani Kumar**, Rishabh Gupta, Md Shad Akhtar, Tanmoy Chakraborty. [Adding SPICE to Life: Speaker Profiling in Multiparty Conversations](#) *Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING)*, 2024.
- [C.4] **Shivani Kumar**, Tanmoy Chakraborty. [Harmonizing Code-mixed Conversations: Personality-assisted Code-mixed Response Generation in Dialogues](#). *Conference of the European Chapter of the Association for Computational Linguistics (EACL) - Findings*, 2024.
- [C.3] **Shivani Kumar**, Ramaneswaran S, Md Shad Akhtar, Tanmoy Chakraborty. [From Multilingual Complexity to Emotional Clarity: Leveraging Commonsense to Unveil Emotions in Code-Mixed Dialogues](#). *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2023.

- [J.3] **Shivani Kumar**, Shubham Dudeja, Md Shad Akhtar, Tanmoy Chakraborty. [Emotion Flip Reasoning in Multiparty Conversations](#). *IEEE Transactions on Artificial Intelligence*, 2023.
- [C.2] **Shivani Kumar**, Ishani Mondal, Md Shad Akhtar, Tanmoy Chakraborty. [Explaining \(Sarcastic\) Utterances to Enhance Affect Understanding in Multimodal Dialogues](#). *Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI 2023)*.
- [C.1] **Shivani Kumar***, Atharva Kulkarni*, Md Shad Akhtar, Tanmoy Chakraborty. [When did you become so smart, oh wise one?! Sarcasm Explanation in Multi-modal Multi-party Dialogues](#). *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL 2022)*.
- [J.2] **Shivani Kumar**, Anubhav Shrimal, Md Shad Akhtar, Tanmoy Chakraborty. [Discovering Emotion and Reasoning its Flip in Multi-Party Conversations using Masked Memory Network and Transformer](#). *Knowledge-Based Systems*, 2022.
- [J.1] Manjot Bedi*, **Shivani Kumar***, Md Shad Akhtar, Tanmoy Chakraborty. [Multi-modal Sarcasm Detection and Humor Classification in Code-mixed Conversations](#). *IEEE Transactions on Affective Computing*, 2021.

EDUCATION

- **Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi)** 2019 - 2024
Doctor of Philosophy (Ph.D.) Delhi, India
 - Thesis Title: Understanding and Explaining Affective Traits in English and Code-mixed Conversations
 - Advisor: Prof. Tanmoy Chakraborty
- **University of Delhi – Department of Computer Science** 2017 - 2019
Masters of Sciences (M.Sc.) in Computer Science Delhi, India
 - Thesis Title: Using Complex Networks for Generating Concept Maps
 - Advisor: Prof. Vasudha Bhatnagar
 - Aggregate: 87.5% (GPA: 3.5/4.0)
- **University of Delhi – Shaheed Sukhdev College of Business Studies** 2014 - 2017
Bachelors of Sciences (B.Sc.) in Computer Science Delhi, India
 - Aggregate: 92.5% (GPA: 3.7/4.0)
- **Queen Marys School, Tis Hazari** 2002 - 2014
School Education Delhi, India
 - **Senior Secondary**, CBSE: 91.2% (3.6/4.0 GPA)
 - **Secondary**, CBSE: 91.2% (3.6/4.0 GPA)

TEACHING ASSISTANT

- **Social Network Analysis** 2023, 2022
National Programme on Technology Enhanced Learning (NPTEL) – an Indian MOOCs Platform
- **Social Network Analysis** 2022
Teaching Assistant at IIIT-Delhi
- **Machine Learning** 2021
Teaching Assistant at IIIT-Delhi
- **Natural Language Processing** 2021
Teaching Assistant for PG Diploma in Data Science and AI at IIIT-Delhi

INVITED TALKS



- **Guest lecture on “Affective Traits of Natural Language”** 2025
For Lamarr Institute NLPProc Colloquium University of Bonn, Germany
- **Guest lecture on “Machine Learning for Sarcasm Analysis”** 2024
For Applied Machine Learning course University of Michigan, Ann Arbor, Michigan, US
- **University of Michigan DSCSS seminar series** 2024
Talk on “Affective Traits of Natural Language” Ann Arbor, Michigan, US
- **ACM-India’s Symposium for Academic Research and Careers for Students** 2023
Lightning Talk and Poster Presentation NISER Bhubhaneshwar, India

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| • International Conference on Natural Language Processing (ICON) Tutorial on “Building Blocks of AI-Driven Mental Health Counseling” | 2023 University of Goa, India |
| • Google Research Week Poster Presentation | 2024, 2023 Bangalore, India |
| • Guest lecture on “Social Media Analytics” For Research Methods in Social Science and Design (RMSSD) course | 2022, 2021, 2019 IIIT-Delhi, India |

AWARDS AND ACHIEVEMENTS

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| • Selected as a DAAD AInet fellow for the Postdoc-NeT-AI Includes a virtual networking week and a one-week networking visit to Germany. | Oct 2024 |
| • Microsoft Travel Grant, ACM-Woman Travel Grant For Travel to Singapore for EMNLP. | Nov 2023 |
| • Google Travel Grant, Microsoft Travel Grant, ACM-India Travel Grant (IARCS) For Travel to Dublin, Ireland for ACL. | Apr 2022 |
| • Junior Research Fellowship (JRF) Qualified UGC-NET, a standardized test by the University Grants Commission (UGC), India. | Jul 2019 |
| • Certificate of Merit From Shaheed Sukhdev College of Business Studies for academic excellence in Bachelors. | Jul 2017 |

IN NEWS

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| • The Science Archive  Talks about our preprint - “Are Rules Meant to be Broken? Understanding Multilingual Moral Reasoning as a Computational Pipeline with UNIMORAL” | Mar 2025 |
| • UMSI Research Roundup  Talks about our preprint - “Real or Robotic? Assessing Whether LLMs Accurately Simulate Qualities of Human Responses in Dialogue.” | Dec 2024 |

POSITIONS OF RESPONSIBILITY

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| • Co-Organiser at EDiReF Shared Task in SemEval Workshop @ NAACL | 2024 |
| • Program Committee at ICON International Conference on Natural Language Processing | 2022 |
| • Program Committee at CONSTRAINT Workshop on Combating Online Hostile Posts in Regional Languages during Emergency Situation @ ACL | 2022 |
| • Co-Organiser at ACSS Workshop on AI for Computational Social Systems | 2021, 2020 |
| • Co-Organiser at COFAD Workshop on Combating Fraud Activities using Data Science | 2020 |

COMMUNITY SERVICE

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| • Area Chair ARR | 2025 |
| • Paper Reviewer ICLR, ARR, Neural Networks | 2025 |
| • Paper Reviewer ARR, ASONAM, WiNLP, Cluster Computing, IEEE Transactions on Artificial Intelligence | 2024 |
| • Paper Reviewer ARR, EMNLP | 2023 |
| • Paper Reviewer EMNLP, ICON, CHI, DAFSAA | 2022 |
| • Student Mentor For the “Desh ka Mentor” program of Delhi Government. Mentored four high school students. | 2022 |
| • Rapporteur For The International Colloquium on Ethics and Governance of Autonomous AI Systems | 2019 |

ADDITIONAL INFORMATION

Fluent Languages: • English • Hindi

Interests: • Crocheting • Photography • Reading • Writing • Art & Craft

REFERENCES

1. **Prof David Jurgens**

Associate Professor, School of Information

University of Michigan

Email: jurgens@umich.edu

Relationship: Postdoc Advisor

2. **Prof Tanmoy Chakraborty**

Associate Professor, Dept. of Electrical Engineering (Computer Technology Group); Associate Faculty Member, Yardi School of Artificial Intelligence

Indian Institute of Technology Delhi (IIT Delhi), India

Email: tanchak@iitd.ac.in, chak.tanmoy.iit@gmail.com*

Relationship: PhD Advisor

3. **Dr. Md Shad Akhtar**

Assistant Professor, Department of Computer Science and Engineering

Indraprastha Institute of Information Technology (IIIT) Delhi

Email: shad.akhtar@iiitd.ac.in

Relationship: Mentor and Professor

4. **Prof Vasudha Bhatnagar**

Professor, Dept. of Computer Science

University of Delhi

Email: vbhatnagar@cs.du.ac.in

Relationship: Master's Advisor

5. **Dr. Sumit Bhatia**

Senior Machine Learning Scientist, Media and Data Science Research Lab

Adobe Inc.

Email: sumit.bhatia@adobe.com, sumit.summit@gmail.com*

Relationship: Internship Mentor