

Shivani Kumar

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Research Interests

Conversational Systems • Natural Language Processing • Deep Learning • Information Retrieval

Publications

1. **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.
2. **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.
3. 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.
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.
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.
6. **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.
7. **Shivani Kumar**, Rameshwaran 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.
8. **Shivani Kumar**, Shubham Dudeja, Md Shad Akhtar, Tanmoy Chakraborty. [Emotion Flip Reasoning in Multiparty Conversations](#). *IEEE Transactions on Artificial Intelligence*, 2023.
9. **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)*.






10. **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)*.
11. **Shivani Kumar**, Anubhav Shrivastava, 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.
12. 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.

Work Experience	University of Michigan, Ann Arbor May 2024 - Present Postdoctoral Fellow at BlaBlablab, UMSI Topic: <i>Morals × NLP</i> Mentors: Dr. David Jurgens
	Adobe Research, India January 2023 - June 2023 Research Intern at Media and Data Science Research (MDSR) Lab, Topic: <i>Domain Adaptable Dialogue Foundation Model</i> Mentors: Sumit Bhatia, Milan Aggarwal Team Lead: Balaji Krishnamurthy
Education	Indraprastha Institute of Information Technology, Delhi (IIITD) 2019 - 2024 Doctor of Philosophy (Ph.D.) , Computer Science and Engineering, Thesis Title: <i>Understanding and Explaining Affective Traits in English and Code-mixed Conversations</i> Advisor: Dr. Tanmoy Chakraborty
	University of Delhi 2017 - 2019 Masters of Sciences (M.Sc.) , Computer Science, Topic: <i>Using complex networks to generate a concept map of a book</i> Advisor: Dr. Vasudha Bhatnagar Aggregate: 87.5%
	University of Delhi, Shaheed Sukhdev College of Business Studies 2014 - 2017 Bachelors of Sciences (B.Sc.) , Computer Science, Aggregate: 92.5%
	Queen Mary's School, Tis Hazari, Delhi 2000 - 2014 Senior Secondary , CBSE: 91.2% Secondary , CBSE: 9.6/10 CGPA
Relevant Course Works	Natural Language Processing • Information Retrieval • Machine Learning • Deep Learning • Data Mining • Artificial Intelligence • Data Structures • Algorithms
Teaching/ Guest Lectures	<ul style="list-style-type: none"> • Teaching Assistant for Social Network Analysis for NPTEL. 2023 • Teaching Assistant for Social Network Analysis for NPTEL. 2022 • Teaching Assistant for Social Network Analysis at IIITD. 2022 • Teaching Assistant for post graduate level Machine Learning at IIITD. 2021

	<ul style="list-style-type: none"> • Teaching Assistant for Natural Language Processing in PG Diploma in Data Science and AI at IIITD. 2021 • Delivered a guest lecture at IIITD on the subject ‘Social Media Analytics’ with a hands-on for Sentiment Analysis. 2019, 2021
Awards/ Achievements	<ul style="list-style-type: none"> • Received Travel grants from Microsoft and ACM-Women to support travel to Singapore for EMNLP 2023. • Received Travel grants from Google, Microsoft, and ACM-India/IARCS to support travel to Dublin, Ireland for ACL 2022. • Received Junior Research Fellowship (JRF) from University Grants Commission (UGC), India. Qualified UGC-NET (National Eligibility Test) 2019 • Certificate of Merit awarded by Shaheed Sukhdev College of Business Studies for securing 2nd position in college in B.Sc.(H) Computer Science. 2017
Published Alexa Skills	<ul style="list-style-type: none"> • Hand Cricket 1.0: A Game skill mimicking the rules of cricket with audio interaction. • Inspire Me: A skill that provides unique motivational quote daily. (Got 300+ unique customers in less than a month. • Indian Capitals: An educational skill to make the users learn about the Indian states and their capitals.
Positions of Responsibility	<ul style="list-style-type: none"> • Reviewer for ASONAM 2024. • Reviewer for ARR. • Co-organizer of EDiReF - a shared task at SemEval 2024. • Reviewer for EMNLP 2023. • Reviewer for ACL 2023. • Reviewer for ICON 2022. • Reviewer for EMNLP 2022. • PC member for CONSTRAINT 2022, a workshop collocated with ACL 2022. • Reviewer for CHI 2022 LBW. • Reviewer for DASFAA 2022. • Served as a mentor in the Desh ka Mentor program of Delhi Government mentoring four high school students. • Co-Organised ACSS 2021 (<i>Workshop on AI for Computational Social Systems 2021</i>) at IIITD. • Co-Organised ACSS 2020 (<i>Workshop on AI for Computational Social Systems 2020</i>) and COFAD 2020 (<i>Workshop on Combating Fraud Activities using Data Science</i>) at IIITD. • Rapporteur in “The International Colloquium on Ethics and Governance of Autonomous AI Systems” (18-19 February 2019) organised by CMS and Info-com think tank. • Member of Core Committee (Curatio – Shaheed Sukhdev College of Business Studies): Organized a career counseling event for the students of B.Sc. and B.Tech. College’s alumni were invited to share their experiences.

Other Interests Photography • Reading • Writing • Music • Art & craft

References

- Dr. David Jurgens, *Postdoc Advisor* |  | @
- Dr. Tanmoy Chakraborty, *PhD Advisor* |  | @
- Dr. Md Shad Akhtar, *Mentor and Teacher* |  | @
- Dr. Vasudha Bhatnagar, *Masters Thesis Advisor* |  | @
- Dr. Sumit Bhatia, *Internship Mentor*, |  | @