

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](#)

Research Interest

I am a researcher in NLP and human-AI interaction. I design, analyze, and evaluate AI systems with a focus on human-centered dimensions of language, including affective and socio-cultural factors such as emotions, morality, and culture. My work investigates how these systems understand, express, and explain these complex phenomena. Looking ahead, I aim to extend this research to rhetorical strategies, exploring how human-specific dimensions are leveraged by AI systems to persuade or influence human decision-making.

Experience

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

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. 🏆 **Best resource paper**.
- [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, Rameswaran 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 Shrimall, 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

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- 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 Mary’s 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

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- Annual German Academic International Network (GAIN) Conference 2025
 Science Slam about “Moral Reasoning using UniMoral” Boston, USA
 - 3rd Symposium on NLP for Social Good 2025
 Talk on “Moral Reasoning using UniMoral” Virtual Event
 - Data Science/Computational Social Science (DS/CSS) seminar series 2024
 Science “Affective Traits of Natural Language” University of Michigan, USA
 - ACM-India’s Symposium for Academic Research and Careers for Students 2023
 Lightning Talk and Poster Presentation NISER Bhubhaneshwar, India

- International Conference on Natural Language Processing (ICON) 2023
Tutorial on “Building Blocks of AI-Driven Mental Health Counseling” University of Goa, India
- Google Research Week 2024, 2023
Poster Presentation Bangalore, India



Guest Lectures

- Lamarr Institute NLProc Colloquium 2025
Title: “Affective Traits of Natural Language” University of Bonn, Germany
- Applied Machine Learning course (SI-670) 2024
Title: “Machine Learning for Sarcasm Analysis” University of Michigan, Ann Arbor, Michigan, USA
- Research Methods in Social Science and Design (RMSSD) course (SSH201) 2022, 2021, 2019
Title: “Social Media Analytics” IIIT-Delhi, India

Awards and Achievements

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

In News

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

Positions of Responsibility

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

Community Service

- Area Chair 2025
ARR
- Reviewer 2025
ICLR, ARR, Neural Networks
- Reviewer 2024
ARR, ASONAM, WiNLP, Cluster Computing, IEEE Transactions on Artificial Intelligence

• Reviewer ARR, EMNLP	2023
• 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