# Aseem Srivastava

PhD Student at LCS2 Lab, IIIT Delhi

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# **Research Interest**

A Computational Social Science researcher and a final-year Ph.D. candidate working on Natural Language Processing (NLP). Aseem's research focuses on conversational systems, particularly using Large Language Models (LLMs) to develop methods for dialogue/user modeling, controlled text generation, and summarization for applications like virtual counseling and online human behavior analysis. With 8+ publications in top-tier venues such as KDD, WWW, EMNLP, WSDM, and JMIR, he is enthusiastic about applying his learning as a postdoctoral researcher/scientist to solve complex problems and is available to join immediately.

# **EDUCATION**

Doctor of Philosophy (Ph.D.)	2020 - March 2025 (expected graduation)
Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi)	Delhi, India
• Thesis: Towards Enhanced Conversational Dynamics for Effective	e Virtual Therapist-Assistive Counseling

- Advisor: Prof. Md. Shad Akhtar and Prof. Tanmoy Chakraborty
- Bachelor of Technology (B.Tech) in Computer Science and Engineering
   *Kamla Nehru Institute of Technology (KNIT), Sultanpur* Thesis: Amazon Review Analysis to Guage User Sentiments
  - Advisor: Prof. Rafeeq Ahmad

## **PUBLICATIONS**

C=CONFERENCE, J=JOURNAL, P=PREPRINT

- [C.6] Abdullah Mazhar, Zuhair Hasan Shaik, Aseem Srivastava, Polly Ruhnke, Lavanya Vaddavalli, Sri Keshav Katragadda, Shweta Yadav, Md Shad Akhtar. Figurative-cum-Commonsense Knowledge Infusion for Multimodal Mental Health Meme Classification. ACM Web Conference (WWW), 2025.
- [J.2] Aseem Srivastava, Tanya Gupta, Alison Cerezo, Grin Lord, Md Shad Akhtar, Tanmoy Chakraborty. Critical Behavioral Traits Foster Peer Engagement in Online Mental Health Communities. *Public Library* of Science (PLOS One), 2025.
- [C.5] Aseem Srivastava, Smriti Joshi, Tanmoy Chakraborty, Md Shad Akhtar. Knowledge Planning in Large Language Models for Domain-Aligned Counseling Summarization. Conference on Empirical Methods in Natural Language Processing (EMNLP), 2024.
- [J.1] 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.
- [C.4] Aseem Srivastava, Ishan Pandey, Md. Shad Akhtar, Tanmoy Chakraborty. Response-act Guided Reinforced Dialogue Generation for Counseling. *Proceedings of ACM Web Conference* (WWW), 2023.
- [C.3] Aseem Srivastava, Tharun Suresh, Grin Lord, Md. Shad Akhtar, Tanmoy Chakraborty. Counseling Summarization using Mental Health Knowledge Guided Utterance Filtering. Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2022.
- [C.2] Usha Lokala, Aseem Srivastava, Triyasha Ghosh Dastidar, Tanmoy Chakraborty, Md Shad Akthar, Maryam Panahiazar, Amit Sheth. A Computational Approach to Understand Mental Health from Reddit: Knowledge-aware Multitask Learning Framework. Proceedings of the International AAAI Conference on Web and Social Media (ICWSM), 2022.
- [C.1] Ganeshan Malhotra, Abdul Waheed, Aseem Srivastava, Md. Shad Akhtar, Tanmoy Chakraborty. Speaker & Time-aware Joint Contextual Learning for Dialogue-act Classification in Counseling Conversations. Proceedings of 15th ACM International Conf. on Web Search and Data Mining (WSDM), 2022.
- [P.2] Aseem Srivastava, Zuhair Hasan Shaik, Tanmoy Chakraborty, Md Shad Akhtar. Trust Modeling in Counseling Conversations: A Benchmark Study. *ArXiv*, 2025.
- **[P.1]** Aseem Srivastava, Gauri Naik, Alison Cerezo, Tanmoy Chakraborty, Md. Shad Akhtar. Sentimentguided Commonsense-aware Response Generation for Counseling *ArXiv*, 2025.

#### **SKILLS AND INTERESTS**

**Research Interests:** NLP: LLMs, Dialogue Systems, Controlled Generation, Summarization, GenAI • Psycholinguistics: Human Behavior, Social Media, Multimodal Interactions **Skills:** Python, PyTorch, LLMOps, Tensorflow, Git, Cloud Services, Data Structures and Algorithms

## **EXPERIENCE**

#### • Mpathic.ai

## Research Intern (PhD)

Advisors: Dr. Grin Lord and Prof Alison Cerezo

- Conducted research on counseling dialogue summarization and published our findings at KDD 2022.
- Optimized team workflows to develop an end-to-end pipeline, creating a novel methodology from scratch and overseeing its implementation for in-house deployment.

## Analytics Vidhya

July 2019 - August 2019 Gurgaon, Harayana, India

Relationship: Internship Mentor

August 2022 - January 2023

USA (Remote)

T=TUTORIAL

Data Science Intern - Spearheaded the development of machine learning and deep learning models for an in-house portal. In addition, we worked on deep neural networks to facilitate better recommendation frameworks.

# ORGANIZED TUTORIALS AND WORKSHOPS

[T.1] Aseem Srivastava, Neeraj, Yash Kumar Atri, Shivani Kumar, Shad Akhtar, Tanmoy Chakraborty. Building Blocks of AI-Driven Mental Health Counseling. 20th International Conference on Natural Language Processing (ICON), 2023.

COMMUNITY SERVICE		Teaching Assistant	
Paper Reviewer WWW, ARR, EMNLP, ACM Tran. Healthcare	2024	<b>Data Science &amp; Deep Learning</b> TA for Post-graduate Diploma at IIIT-Delhi	2021, 2022
Paper Reviewer ARR, EMNLP	2023	Deep Learning TA at IIIT-Delhi	2022
Paper Reviewer KDD, EMNLP, ICON	2023	Natural Language Processing TA at IIIT-Delhi	2021

## **INVITED TALKS AND SYMPOSIUMS**

• Research Week with Google	2023, 2024, 2025
Got three back-to-back invitations to attend and present our work.	Google Deepmind, Bangalore, India
<ul> <li>Artificial Intelligence Summer School (AISS)</li> </ul>	2024
Invited to present a talk on "Advancing LLM Modeling in Mental Healthcare"	IIIT Delhi, India
• India ML Reading Group	2024
Got invited to present a talk on the "Dialogue Modeling"	Virtual (YouTube)
• ACM-India's Symposium for Academic Research and Careers for Students	2023
Lightning Talk and Poster Presentation	NISER Bhubhaneshwar, India
• Cord.ai	2023
Got invited to present a talk on the "Role of the Conversational Agent's Component i	<i>n Digital Counseling"</i> Virtual

# AWARDS AND ACHIEVEMENTS

Received ACM India Grant to present our EMNLP '24 paper in Miami, USA. 2024

2023 Received Google Research Grant to present our WWW '23 paper in Austin, USA.

Received ACM India Grant to present our KDD '22 paper in Washington DC, USA. 2022

Placed top 9% (N=8K) IIT-Madras Alumni Assoc. Hackearth ML challenge leaderboard (Acc=99.63%). 2019

#### REFERENCES

Dr. Md Shad Akhtar	Prof. Tanmoy Chakraborty	Dr. Grin Lord
Assistant Professor, IIIT Delhi	Associate Professor, IIT Delhi	Founder - CEO, Mpathic.ai
Email: shad.akhtar@iiitd.ac.in	Email: tanchak@iitd.ac.in	Affiliate Research Faculty,
Relationship: PhD Advisor	Relationship: PhD Advisor	University of Washington
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