

Sree Bhattacharyya

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Education

Ph.D. in Informatics

Aug 2023 – present | State College, PA

Pennsylvania State University

Advisor: Dr. James Z. Wang  ; Research Areas: Affective Computing, Multimodal AI

Publications

[1] Cultural Influences on Emotion Expression: Evaluating AI Alignment

Working Paper

[2] ABEE: A Large-scale Bodily Expressed Emotions Dataset and Community Infrastructure

Working Paper

[3] Do Machines Think Emotionally? Cognitive Appraisal Analysis for LLMs

Sree Bhattacharyya, Lucas Craig, Tharun Dilliraj, Jia Li, James Z. Wang

Working Paper

20th Women in Machine Learning Workshop (WiML 2025) at The Thirty-Ninth Annual Conference on Neural Information Processing Systems (NeurIPS 2025)

[4] Unsupervised Memorability Modeling from Tip-of-the-Tongue Retrieval Queries

Sree Bhattacharyya, Yaman K. Singla, Sudhir Yarram, Somesh Singh, Harini SI, James Z. Wang

Under Review at The IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2026)

[5] Evaluating Vision-Language Models for Emotion Recognition

Sree Bhattacharyya, James Z. Wang

Findings of The 2025 Annual Conference of The Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL 2025 Findings)

[6] A Heterogeneous Multimodal Graph Learning Framework for Emotion Recognition in Social Networks

Sree Bhattacharyya, Shuhua Yang, James Z. Wang

12th International Conference on Affective Computing and Intelligent Interaction (ACII), 2024 (Oral)

[7] Link Prediction for Social Networks using Representation Learning and Heuristic-based Features

Samarth Khanna*, Sree Bhattacharyya*, Sudipto Ghosh, Kushagra Agarwal, Asit Kumar Das

9th International Workshop on Mining Actionable Insights from Social Networks (MAISoN) at the 32nd International Joint Conference on Artificial Intelligence (IJCAI), 2023.

*equal contribution

[8] Towards Bengali WordNet Enrichment using Knowledge Graph Completion Techniques

Sree Bhattacharyya, Abhik Jana





Proceedings of the Workshop on Resources and Technologies for Indigenous, Endangered and Lesser-resourced Languages in Eurasia (EURALI) within the 13th Language Resources and Evaluation Conference (LREC), 2022

Selected Research Projects

Community Data Infrastructure for Bodily Expressed Emotions

Aug 2023 – present

(NSF CCRI):

- Collaborators: Dr. Amy LaViers  (RAD LAB), Dr. Rachelle Tsachor  (UIC), Dr. Reginald Adams , Dr. Michelle Newman  (PSU)
- Collecting a large-scale video dataset (~300k samples) for bodily expressed emotions. [2]
- Building an infrastructure to host similar datasets, and support functions like content-based retrieval of videos.
- Planning and conducting a robotics feasibility study, exploring how social robots can learn nonverbal emotional cues.

Technologies: Amazon MTurk, SQL, PHP, PyTorch, Multimodal Retrieval

Content Memorability with Web-Scale Data [4]

Jan 2025 – present

- Collaborator: Dr. Yaman K. Singla (Adobe Research [✉](#)).
- Curated large-scale memorability data from online platforms like Reddit, including descriptive recall signals.
- Proposed a novel task of recall generation, with a fine-tuned model, and the first model for multimodal Tip-of-the-tongue retrieval.

Technologies: PyTorch, Huggingface Transformers, Large Vision-Language Models, Fine-Tuning

Studying Cultural Representations of Emotions in LLMs [1]

Jan 2025 – present

- Collaborators: Dr. Shiran Dudy [✉](#), Dr. Agata Lapedriza [✉](#) (Northeastern University)
- Replicating a human study on cultural differences (independence vs. interdependence) in emotional expressions, with LLMs.
- Studying additional differences along demographic axes like age and gender, and how well LLMs capture them.

Technologies: LLMs, Prompting, Statistical Analysis

Cognitive Appraisals and LLMs [3]

Apr 2025 – present

- Collaborators: Dr. Jia Li [✉](#) (Penn State)
- Creating a new task and benchmark to evaluate the alignment of LLMs with theoretical notions of emotional appraisal [3]
- Studying the impact of cognitive appraisals on downstream tasks.
- Using cognitive appraisals to study the internal circuitry of emotion-related inference.

Technologies: LLMs, PyTorch, Huggingface Transformers, vLLM, Prompting, Statistical Analysis

Emotion Recognition Using Vision-Language Models [5]

May 2024 – Oct 2024

- Evaluating Vision-Language Models for Evoked Emotion Recognition on the image modality.
- Detailed analysis of robustness of models, and error cases.

Technologies: LLMs, PyTorch, Huggingface Transformers, vLLM, Prompting, Statistical Analysis

Experience

Graduate Assistant

Aug 2023 – present | State College, US

The Pennsylvania State University

Research Assistant with the Wang Group [✉](#).

Teaching Assistant for Applied Data Science (Fall 2024).

Software Engineer

Jul 2022 – Aug 2023 | Bangalore, India

Microsoft (Azure Storage)

DAAD-WISE Research Fellow

May 2021 – Oct 2021 | Hamburg, Germany

University of Hamburg

Software Engineer Intern

Jun 2021 – Jul 2021 | Remote

Microsoft (Digital Security and Risk Engineering)

Selected Awards

- Selected to attend **GHC 2025** in-person, sponsored by **College of IST, PSU**.
- **Vice Provost and Dean of the Graduate School Student Persistence Scholarship (Summer 2025)**: Awarded \$4500 by the Penn State Graduate School for research.
- **NAACL DEI and Volunteer Award (2025)**.
- **Penn State College of IST Rising Star Award** runner-up for research excellence.
- **Jordan-Rednor Graduate Fellowship (Fall 2023)**: merit-based fellowship of \$6000 from College of IST, Penn State.

Academic Services

Reviewing: ACL Rolling Reviews: Dec 2023 - Dec 2024; IEEE Transactions on Affective Computing (2025).

Volunteering: NAACL 2025, AmericasNLP Workshop 2025, BEEU Workshop @ AAI 2026 (Organizer).