

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

Working Paper

[2] Beyond Confidence: Rethinking Self-Assessments for Performance Prediction in LLMs

Sree Bhattacharyya, Samarth Khanna, Leona Chen, Lucas Craig, Tharun Dilliraj, James Z. Wang

Workshop on Agent Behavior (WAB) at the Conference on Language Modeling (COLM) 2026

Under Review (Conference)

[3] Expressing Social Emotions: Misalignment Between LLMs and Human Cultural Emotion Norms

Sree Bhattacharyya, Manas Mehta, Leona Chen, Cristina Salvador, Agata Lapedriza, Shiran Dudy, James Z. Wang

Under Review (Journal)

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

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

Under Review (Journal)

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

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

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

In Proceedings of The IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2026)

[6] 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)

[7] 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)

[8] 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

[9] 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 (NSF CCRI):

Aug 2023 – present

- Collaborators: [Dr. Amy LaViers](#) (RAD LAB), [Dr. Rachelle Tsachor](#) (UIC), [Dr. Reginald Adams](#), [Dr. Michelle Newman](#) (Penn State)

- Collecting a large-scale video dataset (~300k samples) for bodily expressed emotions. [1]
- 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

Emotional and Cognitive Reasoning with LLMs

Apr 2025 – present

- Benchmarking Vision-Language models for evoked emotion recognition [6]
- Creating a new benchmark to evaluate the alignment of LLMs with theoretical notions of emotional appraisal [4], and value-action gap with respect to emotional reasoning. In collaboration with [Dr. Jia Li](#) (Penn State), Dr. Reginald Adams (Penn State).
- Studying specific socio-emotional phenomena, such as the expression of social emotions, to examine LLM-human alignment [3]. In collaboration with [Dr. Shiran Dudy](#), [Dr. Agata Lapedriza](#) (Northeastern University), and [Dr. Cristina Salvador](#) (Duke University).
- Purposing cognitive appraisals for uncertainty quantification with implications for AI safety [2].

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

Content Memorability with Web-Scale Data [5]

Jan 2025 – Nov 2025

- 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

Experience

Research Scientist Intern

May 2026 – Present | Redmond, US

Meta (Reality Labs Research)

Research on internal state prediction in naturalistic interaction with large vision-language models

Graduate Assistant

Aug 2023 – May 2026 | State College, US

The Pennsylvania State University

Research Collaborator

Jan 2025 – Sep 2025 | Remote

Adobe

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

- **Fox Graduate School (Penn State) Degree Completion Award:** merit-based university-wide award (\$10,000). 1 out of 36 chosen scholars in the 2026-27 cohort.
- **Vice Provost and Dean of the Graduate School Student Persistence Scholarship (Summer 2025):** Awarded \$4500 by the Penn State Graduate School for research.
- **Penn State College of IST Rising Star Award** runner-up for research excellence (Spring 2025).
- **Jordan-Rednor Graduate Fellowship** (Fall 2023): merit-based fellowship of \$6000 from College of IST, Penn State.
- **Travel Award** from Women in Machine Learning for a fully-funded trip to NeurIPS 2025.
- **NAACL DEI and Volunteer Award** (Spring 2025).
- Selected to attend the **Grace Hopper Celebration 2025** in person, sponsored by **College of IST, PSU** (Fall 2025).
- **DAAD Working Internships in Science and Engineering (WISE) Fellowship** for research at a public German university (Summer 2021).

Academic Services

Reviewing: ACL Rolling Reviews (Dec 2023 - Dec 2024); IEEE Transactions on Affective Computing (2025); NeurIPS (2025, 2026); AAAI (2025, 2026); WACV 2026

Volunteering: NAACL 2025, AmericasNLP Workshop 2025

Workshops: Bodily Expressed Emotion Understanding Workshop @ AAAI 2026 (Lead Organizer).

Volunteering and Extra-Curricular Activities

- **Peer Mentor** for incoming PhD students at College of IST, Penn State (Summer 2025)
- Lead Student Organizer of **AI for Social Impact Seminar Series** at Penn State (Feb 2025 - May 2026)
- Project Mentor for underrepresented CS undergrad students at **AI4All** (Fall 2024)
- Section Leader at the **Stanford University Code In Place** Program (2024)
- Professional Theatre and classical music performer in India