

Sneha Ray Barman

 Sneha Ray Barman |  sneha.barmen@iitg.ac.in & raybarmansneha2@gmail.com

EDUCATION

PhD Language Technology

Jan 2022 - present

Indian Institute of Technology Guwahati, India

Supervisors: Prof. Shakuntala Mahanta and Dr. Neeraj Kumar Sharma

M.A. Linguistics

2019 - 2021

The English and Foreign Languages University Hyderabad, India

Dissertation: Call me by whose name?: A study of queer linguistics in India

Supervisor: Prof. Anish Koshy

B.A. English (honors)

2016-2019

University of Calcutta

AWARDS AND HONORS

IndSCA Conference Travel Grant

Sept 2024

Awarding body: Indian Speech Communication Association (IndSCA)

Purpose of the grant: Awarded 50,000 INR to attend Interspeech 2024

Institute Travel Grant

Aug 2024

Awarding body: IIT Guwahati

Purpose of the grant: Awarded 75,000 INR to attend Interspeech 2024

IIT Institute Fellowship

2022-present

Awarding body: IIT Guwahati for the tenure of PhD

Qualified UGC National Eligibility Test (NET) in Linguistics

Dec 2020

Awarding body: University Grant Commision, Govt. of India

Umarani Mukherjee Memorial Prize

2019

Awarding body: Gurudas College for scoring the highest marks in undergraduate Honors examination

TEACHING EXPERIENCE

DA 108: Python Programing

Feb-May 2024

Content and assessment designing for BSc.(Hons.) Data Science and Artificial Intelligence program offered by IIT Guwahati on Coursera

CONFERENCE PRESENTATIONS

Ray Barman, S., Mahanta, S., Sharma, N.K. (2024). Deciphering Assamese Vowel Harmony with Featural InfoWaveGAN. Interspeech 2024, Kos, Greece, September 1-5, 2024.

Ray Barman, S., Mahanta, S., Sharma, N.K. (2024). Unsupervised modeling of vowel harmony using WaveGAN. *International Conference on Speech Prosody*, Leiden University, Leiden, July 1-6, 2024. [\[poster\]](#)

Ray Barman, S., Mahanta, S., Sharma, N.K. (2024). Modeling regressive vowel harmony from continuous speech stream. *Annual Meeting of Society for Computation in Linguistics, University of California*,

Irvine, June 27-29, 2024. [\[slides\]](#)

Ray Barman, S., Mahanta, S., Sharma, N.K. (2024). Modeling unsupervised learning of regressive vowel harmony with GAN: A view from Assamese. *International Conference on Laboratory Phonology 19*, Hanyang University, Seoul, June 27-29, 2024. [\[poster\]](#)

Ray Barman, S. (2023). Examining learnability of OT grammar: A view from Kashmiri Loanwords. Poster presented at *ConSOLE XXXI*, Bielefeld University, Germany, February 22-24. [\[poster\]](#)

PEER-REVIEWED CONFERENCE PROCEEDINGS

Ray Barman, S., Mahanta, S., Sharma, N.K. (2024) Deciphering Assamese Vowel Harmony with Featural InfoWaveGAN. *Proc. Interspeech 2024*, 1510-1514, doi: 10.21437/Interspeech.2024-1990 [\[paper\]](#)

Barman, S.R., Mahanta, S., Sharma, N.K. (2024) Unsupervised modeling of vowel harmony using WaveGAN. *Proc. Speech Prosody 2024*, 200-204, doi: 10.21437/SpeechProsody.2024-41 [\[paper\]](#)

Ray Barman, S., Mahanta, S., Sharma, N.K. (2024). Modeling unsupervised learning of regressive vowel harmony with GAN: A view from Assamese. *Proceedings of the 19th Conference on Laboratory Phonology (Eds. T. Cho, S. Kim, J. Holliday and S. Lee-Kim)*, 217-218. [\[published abstract\]](#)

Ray Barman, S. (2024). Examining learnability of OT grammar: A view from Kashmiri Loanwords. *Kovač, Iva, Paul Meisenbichler, Atefeh Shahbazi, Hadis Tamleh and Maximilian Wiesner, ed. ConSOLE XXXI: Proceedings of the 31st Conference of the Student Organization of Linguistics in Europe*, 237-251. Leiden: Leiden University Centre for Linguistics. [\[paper\]](#)

TUTORIAL

Alan Zhou, Bruno Ferenc Šegedin, Jingyi Chen, **Sneha Ray Barman**, and Gasper Begus. “Deep Language Learning: Modeling language from raw speech”. Tutorial at the 2025 LSA Annual Meeting (LSA 2025 Tutorial). Philadelphia, PA. January 9-12. (2025). [\[Website\]](#)

MEMBERSHIP

Linguistic Society of America	<i>Jan 2023 - present</i>
Association for Laboratory Phonology	<i>April 2024 - present</i>
ISCA	<i>Jun 2024 - present</i>

SKILLS

Programming Languages:	C, Python, R, SPSS
Tools/Technologies:	Praat, Kaldi, MBROLA, Git, PyTorch, Jupyter, L ^A T _E X
Languages:	Bangla(native), English(L2 proficiency), Hindi(L3 proficiency), French(basic), mandarin Chinese(basic)

OUTREACH

Akshar (student initiative of EFLU Hyderabad)	<i>Aug 2019-Feb 2020</i>
<i>student coordinator, teacher</i>	

- Organized weekly classes for underprivileged children and taught dropped-out students English, Maths, and General knowledge.

OTHER REESPONSIBILITIES

Web Development team of CLST, IIT Guwahati

Jun 2023-present

assistant developer

- Creatively designed and developed the website of the Centre for Linguistic Science & Technology.
- Responsible for keeping and maintaining the information up-to-date.

Tero Parbon, IIT Guwahati

April 2022-present

member, organizer

- Accelerated Bengali cultural programs at the IIT Guwahati campus by crafting fresh ideas.