

Akhilesh Kakolu Ramarao

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EMPLOYMENT

- 2021– **Heinrich-Heine-Universität Düsseldorf**
Wissenschaftlicher Mitarbeiter, Department of English Language and Linguistics
- Teaching Computational Linguistics courses for Bachelor and Masters of Arts students
 - Setup phonetics laboratory
 - Maintainer of Slamlab (<https://slam.phil.hhu.de/>) server, hosting multiple services
- 2019–20 **Civicalab**
Natural Language Processing (NLP) Researcher
- Worked on building Language Platform for Assamese language that includes - Optical Character Recognition for Assamese, Machine Translation system for English and Assamese, Assamese keyboard, rich text editor and creation of parallel corpora for English and Assamese
- 2017–19 **Skit.ai**
Software Engineer
- Involved in designing and developing end-to-end speech and natural language processing A.I. systems for automating customer care systems
- 2017 **Ramco Systems**
Software Engineer
- Prime developer in designing and developing a chatbot for Human Resource (HR) system

EDUCATION

- Ph.D (ongoing) General Linguistics, Heinrich-Heine-Universität Düsseldorf, Germany
Advisors: Prof. Dr. Kevin Tang and Dr. Dinah Baer-Henney
- M.A. General Linguistics, Heinrich-Heine-Universität Düsseldorf, Germany, 2022-2024
- B.Engg. Automobile Engineering, Dayanand Sagar College of Engineering, India, 2012-2016

RESEARCH AREAS

Computational Morphology, Language Revitalization

SKILLS

Recent programming experience: Python, Bash, LaTeX, Scheme, Julia

Past programming experience: Haskell, Dart, JavaScript (AngularJS)

Frameworks: PyTorch, Flutter, Django

Databases: MySQL, PostgreSQL

Platforms: Arch linux, Ubuntu, MacOS

Cloud: AWS, GCP, High-performance computing (HPC)

Other technologies: Git, Docker, Neovim, Hugo, Jekyll, CI/CD

PUBLICATIONS

Journal Articles

- 2024 Muschalik, J., Schmitz, D., **Kakolu Ramarao, A.** *et al.* Typing /s/—morphology between the keys? *Reading and Writing* (2024).
<https://doi.org/10.1007/s11145-024-10586-9>

Conference Proceedings

- 2024 **Kakolu Ramarao, A.**, Petersen, W., Stein, A., Stein, E., & Xia, H. (2024). KlarTextCoders at StaGE: Automatic Statement Annotations for German Easy Language. In *Proceedings of GermEval 2024 Shared Task on Statement Segmentation in German Easy Language (StaGE)* (pp. 15–27), Vienna, Austria. Association for Computational Linguistics.
<https://aclanthology.org/2024.germeval-1.2.pdf>
- 2023 Jeong, C., Schmitz, D., **Kakolu Ramarao, A.**, Stein, A., & Tang, K. (2023). Linear discriminative learning: a competitive non-neural baseline for morphological inflection. In *Proceedings of the 20th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology* (pp. 138–150). Association for Computational Linguistics.
<https://doi.org/10.18653/v1/2023.sigmorphon-1.16>
- 2022 **Kakolu Ramarao, A.**, Zinova, Y., Tang, K., & van de Vijver, R. (2022). HeiMorph at SIGMORPHON 2022 shared task on morphological acquisition trajectories. In *Proceedings of the 19th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology* (pp. 236–239). Association for Computational Linguistics.
<https://doi.org/10.18653/v1/2022.sigmorphon-1.24>

Under Review

- 2024 **Kakolu Ramarao, A.**, Tang K. & Baer-Henney D. [ANONYMIZED]. *Association for Computational Linguistics*
- 2024 Merchant R., **Kakolu Ramarao A.** & Tang K. Connecting the Persian-speaking world through transliteration

TALKS

Peer-reviewed Talks

- 2024 “Community-driven Language Revitalization: Translating Children’s Literature in K’man Mishmi” at the International Conference on Language, Ecology and Culture 2024, NEILAC, Guwahati, India. [Slides](#)
- 2024 “KlarTextCoders at StaGE: Automatic Statement Annotations for German Easy Language” at the Konferenz zur Verarbeitung natürlicher Sprache (KONVENS) 2024, University of Vienna, Austria.
- 2024 “A computational approach to understanding the cognitive reality of morphomic patterns: the case of L-shaped morphemes in Spanish” at the Annual Meeting of Linguistics Association of Great Britain and Northern Ireland 2024, Newcastle University, United Kingdom. [Slides](#)
- 2024 “Acoustic Analysis of Vowels in Idu Mishmi” at the 27th Himalayan Languages Symposium, IIT Guwahati, India
- 2023 “From Zero to Terminal Hero” at the 32nd Tagung der Computerlinguistik-Studierenden (TaCoS), Heinrich Heine University, Düsseldorf, Germany. [Slides](#)
- 2023 “Can Neural Networks learn human-like behavior when inflecting verbs? The case of Spanish” at the Five-Minute Linguist competition, Linguistic Society of America 97th Annual Meeting
- 2023 “Modeling irregular morphological patterns using Transformers” at the HeiCAD Lightning Talks, Heinrich Heine University, Düsseldorf, Germany

Invited Talks

- 2021 “Language Revitalization: A case of Idu Mishmi” at the Microsoft Research India
- 2021 “Language Revitalization” at the Navana Tech

POSTER PRESENTATIONS

Peer-reviewed Presentations

- 2024 **Kakolu Ramarao, A.,** & Stein, A. S. AnglistikVoices: an L2 English speech dataset for educational and technological advancement in speech technology. LabPhon 19, Hangyang University, Seoul, South Korea. [Poster](#)
- 2023 Muschalik, J., Schmitz, D., **Kakolu Ramarao, A.,** & Baer-Henney, D. Acoustic duration and typing timing - same, same... but different? Phonetics and Phonology in Europe 2023, Nijmegen, Netherlands
- 2023 Tang, K., **Kakolu Ramarao, A.,** & Baer-Henney, D. Modeling irregular morphological patterns with recurrent neural network: the case of the L-shaped morpheme. 13th Mediterranean Morphology Meeting, University of the Aegean, Greece

TEACHING

Heinrich-Heine-Universität Düsseldorf

- Summer 2025 Academic Writing
- Summer 2025 Applied Phonology: Evaluating Voice Assistants

Winter 2024	LLMs in Linguistic Research
Summer 2024	Learning Inflection
Winter 2023	Accent unplugged: Evaluating Voice assistants
Summer 2023	Synthesizing speech
Winter 2022	Language technology for Linguists with Internet of Things (IoT)
Winter 2022	LaTeX for Linguists
Summer 2022	Towards a career in language technology: linguistic annotation
Winter 2021	Basic Skills in Digital Humanities

GRANTS AND AWARDS

2022	Hardware Grant. 20 × NVIDIA® Jetson™ Nano Developer Kits. NVIDIA Academic Hardware Grant, “FOSStering Digital Humanities through Accent Diversity & Conversational Devices”. Co-applicant: Kevin Tang
2022	Education Grant. €9,424. e-Learning support fund, Heinrich-Heine University Düsseldorf. “Interactive web-based review units for phonetics and phonology”. Co-applicant: Christopher Geissler and Kevin Tang
2022	First prize at the HHU Legal Hackathon, Heinrich-Heine-Universität. Team: Akhilesh Kakolu Ramarao, Phaeton Paschalis and Diana Schill
2022	First prize at the HeiCAD Lightning Talks, Heinrich-Heine-Universität

FIELDWORK

2020	Idu Mishmi community Roing, Arunachal Pradesh, India
	<ul style="list-style-type: none"> - Built the first ever E-Dictionary for Idu Mishmi and English in the form of an offline mobile dictionary application - Press coverage: https://arunachaltimes.in/index.php/2020/12/14/imcls-launches-mishmi-idu-dictionary-app/

CONSULTING

2020-2021	XRI Institute
2020-2021	Vrook

VOLUNTEERING

2021-	Idu Mishmi Cultural and Literary Society (IMCLS) Chief Coordinator
2021-	Lohit Youth Library Network Volunteer

WORKSHOP ORGANIZATION

- 2023 Translation Workshop: English to K'man Mishmi, Bamboosa Library, Tezu, Arunachal Pradesh, India
- 2022 LibreSlam - Free and Open Source (FOSS) for everybody workshop at Heinrich-Heine-Universität Düsseldorf

DEMOS

- 2024 "Students as Researchers" at the Nacht der Wissenschaft, Shadowplatz, Düsseldorf, Germany
- 2022 "Role of linguistics in AI for social good" at the Nacht der Wissenschaft, Shadowplatz, Düsseldorf, Germany

LANGUAGES

- English *Fluent*
- Kannada *Fluent*
- Hindi *Advanced*
- German *Beginner (A1 level)*