Nina Markl (she/they)

sociolinguistics, speech technologies, AI ethics

▬▬▬ Employment

since August 2023	**Research Fellow**, *Institute of Analytics and Data Science & Department of Languages and Linguistics*, The University of Essex
April – August 2023	**Research Associate**, *UKRI Node Trustworthy Autonomous Systems Governance and Regulation*, The University of Edinburgh
2020-2022 (part-time)	**Research Assistant**, *Lothian Diary Project*, University of Edinburgh
May – July 2020	**Research Assistant**, *Dr Andreas Steinhauer, School of Economics*, University of Edinburgh

▬▬▬ Education

2019–2023	**Doctor of Philosophy**, *UKRI CDT in Natural Language Processing,* The University of Edinburgh, Scotland
	○ **Supervisors:** Dr Catherine Lai, Prof Lauren Hall-Lew
	○ **Thesis:** "Language Variation, Automatic Speech Recognition, Algorithmic Bias"
2015–2019	**Linguistics MA (Hons) First Class Honours**, The University of Edinburgh, Edinburgh, Scotland

▬▬▬ Publications

[1] N. Markl. ""I can't see myself ever living any[w]ere else": Variation in (HW) in Edinburgh English". In: *Language Variation and Change* (2023), pp. 1–27. DOI: 10.1017/S0954394523000078.

[2] N. Markl and C. Lai. "Everyone has an accent". In: *INTERSPEECH 2023*. ISCA, 2023. DOI: 10.21437/interspeech.2023-1847.

[3] N. Markl, E. Wallington, O. Klejch, T. Reitmaier, G. Bailey, J. Pearson, M. Jones, S. Robinson, and P. Bell. "Automatic Transcription and (De)Standardisation". In: *2nd Annual Meeting of the ELRA/ISCA SIG on Under-resourced Languages (SIGUL 2023)*. ISCA, 2023. DOI: 10.21437/sigul.2023-20.

[4] T. Reitmaier, E. Wallington, O. Klejch, N. Markl, L.-M. Lam-Yee-Mui, J. Pearson, M. Jones, P. Bell, and S. Robinson. "Situating Automatic Speech Recognition Development within Communities of Under-heard Language Speakers". In: *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, 2023. DOI: 10.1145/3544548.3581385.

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[5] R. Sanabria, N. Bogoychev, N. Markl, A. Carmantini, O. Klejch, and P. Bell. "The Edinburgh International Accents of English Corpus: Towards the Democratization of English ASR". In: *ICASSP 2023*. IEEE, 2023. DOI: 10.1109/icassp49357.2023.10095057.

[6] C. Cowie, L. Hall-Lew, Z. Elliott, A. Klingler, N. Markl, and S. J. McNulty. "Imagining the city in lockdown: Place in the COVID-19 self-recordings of the Lothian Diary Project". In: *Frontiers in Artificial Intelligence* 5 (2022). DOI: 10.3389/frai.2022.945643.

[7] L. Hall-Lew, C. Cowie, C. Lai, N. Markl, S. J. McNulty, S.-J. S. Liu, C. Llewellyn, B. Alex, Z. Elliott, and A. Klingler. "The Lothian Diary Project: Sociolinguistic Methods during the COVID-19 Lockdown". In: *Linguistics Vanguard* 8.s3 (2022), pp. 321–330. DOI: 10.1515/lingvan-2021-0053.

[8] N. Markl. "(Commercial) Automatic Speech Recognition as a Tool in Sociolinguistic Research". In: *University of Pennsylvania Working Papers in Linguistics* 28.2 (2022). URL: https://repository.upenn.edu/pwpl/vol28/iss2/11.

[9] N. Markl. "Language Variation and Algorithmic Bias: Understanding Algorithmic Bias in British English Automatic Speech Recognition". In: *2022 ACM Conference on Fairness, Accountability, and Transparency*. FAccT '22. Seoul, Republic of Korea: Association for Computing Machinery, 2022, pp. 521–534. DOI: 10.1145/3531146.3533117.

[10] N. Markl. "Mind the data gap(s): Investigating power in speech and language datasets". In: *Proceedings of the Second Workshop on Language Technology for Equality, Diversity and Inclusion*. Dublin, Ireland: Association for Computational Linguistics, 2022, pp. 1–12. DOI: 10.18653/v1/2022.ltedi-1.1.

[11] N. Markl and S. J. McNulty. "Language technology practitioners as language managers: arbitrating data bias and predictive bias in ASR". In: *Proceedings of the Language Resources and Evaluation Conference*. Marseille, France: European Language Resources Association, 2022, pp. 6328–6339. URL: https://aclanthology.org/2022.lrec-1.680.

[12] L. Hall-Lew, C. Cowie, S. J. McNulty, N. Markl, S.-J. S. Liu, C. Lai, C. Llewellyn, B. Alex, N. Fang, Z. Elliott, and A. Klingler. "The Lothian Diary Project: Investigating the Impact of the COVID-19 Pandemic on Edinburgh and Lothian Residents". In: *Journal of Open Humanities Data* 7 (2021). DOI: 10.5334/johd.25.

[13] N. Markl and C. Lai. "Context-sensitive evaluation of automatic speech recognition: considering user experience & language variation". In: *Proceedings of the First Workshop on Bridging Human–Computer Interaction and Natural Language Processing*. Online: Association for Computational Linguistics, 2021, pp. 34–40. URL: https://www.aclweb.org/anthology/2021.hcinlp-1.6.

[14] L. Burchell, J. Chi, T. Hosking, N. Markl, and B. Webber. "Querent Intent in Multi-Sentence Questions". In: *Proceedings of the 14th Linguistic Annotation Workshop*. Barcelona, Spain: Association for Computational Linguistics, 2020, pp. 138–147. URL: https://www.aclweb.org/anthology/2020.law-1.13.

Professional Service

since 2023	**Diversity Committee Member**, *International Speech Communication Association*
since 2023	**LGBTQ+ Staff Forum**, *University of Essex*
2022	**Organising Committee**, UK Language Variation and Change 14

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Journal and Conference Reviewing

2023	**Language Variation and Change**, *Cambridge University Press*, *journal articles*
2022	**UK Language Variation and Change Conference**, June 2023, Edinburgh, *conference abstracts*
2022	**2nd Workshop on Bridging Human Computer Interaction and Natural Language Processing**, *North American Association for Computational Linguistics*, 15 July, Seattle, *conference papers*
2022	**2nd Workshop on Language Technology for Equality, Diversity and Inclusion**, *Association for Computational Linguistics*, 27 May, Dublin, *conference papers*
2021	**International Journal of Qualitative Methods**, *SAGE Journals*, *journal articles*

Teaching Experience

2022/23	**Tutor**, *Professional Issues (Informatics)*, University of Edinburgh 3rd year undergraduate course introducing AI ethics and ethical issues in (computer) engineering; leading small group discussions, marking
2022/23	**Guest Lecturer & Marker**, *Sociolinguistics Research Design*, University of Edinburgh Postgraduate course; guest lectures and workshop on: research & data ethics, writing research proposals, designing quantitative research projects, language & nationalism; marking
2022/23	**Guest Lecturer**, *Controversies in the Data Society*, University of Edinburgh Postgraduate course on ethical issues in sociotechnical systems; guest lecture on risks and harms of Large Language Models
2021/22	**Marker**, *Sociolinguistics Research Design*, University of Edinburgh Postgraduate course; marking
2020-2021	**Tutor**, *LEL2B: Phonetics and Empirical Methods*, University of Edinburgh 2nd year undergraduate course introducing phonetics and empirical methods; small group in-person tutoring and marking
since 2020	**Tutor**, *PPLS Skills Centre*, University of Edinburgh Individual sessions with postgraduate and undergraduate students; Essay writing, quantitative data analysis and statistics support (coursework and dissertations)

Prizes, Grants and Awards

2022	**Small grant**, *Institute of Language, Cognition and Computation*, University of Edinburgh Award for work with collaborators to compile a diverse, multi-accent dataset of English language conversations for speech technology development (£5000)
2022	**AIES Student programme**, *AIES 2022* Selected for participation in AIES student programme, fees covered by AIES
2019-2023	**PhD Funding**, *UKRI Centre for Doctoral Training in Natural Language Processing*, University of Edinburgh Full scholarship covering tuition fees, programme costs and stipend

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2019 **Angus McIntosh Prize**, *Angus McIntosh Centre and School of Philosophy, Psychology and Language Sciences*, University of Edinburgh
Prize for best honours dissertation in Linguistics & English Language (£100)

Public Engagement

11/2022 **Close to Home: Lothian Diary Project**, *University of Edinburgh*
Public exhibition showcasing contributions to Lothian Diary project and Being Human Festival event at Streetreads Edinburgh

11/2021 **FOSS: Sharing Hidden Lockdown Stories**, *University of Edinburgh*
Virtual launch of report to Scottish parliament with policymakers and Lothian Diary Project contributors

2020-2021 **Lothian Diaries events**, *University of Edinburgh*
Various recruitment and outreach activities to promote the Lothian Diary project, including participation in Being Human festival

Technical skills

R, NVivo, Python, Excel, *quantitative and qualitative data analysis, statistics, data processing*, experienced

Qualtrics, R, NVivo, *survey design, quantitative and qualitative analysis of survey responses*, experienced

R, TEX, Adobe Illustrator, *data visualisation, preparation of graphics for publications*, experienced

Word, Powerpoint, LATEX, Canva, *preparation of presentations and documents*, experienced

Praat, ELAN, *annotation, analysis, manipulation of audio files*, experienced

Zotero, JabRef, *reference management*, experienced

Adobe Premiere Pro, *video editing*, basic

Bash, Matlab, *basic*

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