

# Mikey Elmers

Kyoto, Japan

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## SUMMARY

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Research scientist with years of experience in experimental design, data collection, statistical analyses, coding, and data visualization. Proficient in SQL, R, and Python. Native English speaker skilled in effectively communicating complex insights to stakeholders, both technical and non-technical.

## EXPERIENCE

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### Kyoto University

Kyoto, Japan

Researcher

2023–Present

- Postdoctoral researcher, *Moonshot* project.
- Investigated spoken dialogue systems for human-robot interaction and virtual agents.
- Designed systems to improve speech expressivity.

### Saarland University

Saarbrücken, Germany

Researcher

2020–2023

- Co-Researcher, *Pause-Internal Phonetic Particles* project (PhD Researcher).
- Conducted research on speech synthesis, specifically focusing on the behavior of phonetic particles within speech pauses.
- Investigated and modeled human pausing structure to generate natural and expressive speech synthesis using Python.
- Evaluated recall effects of speech pauses in speech synthesis with native and non-native listeners.
- Implemented experimental design, collected data, performed statistical analyses, and utilized coding skills for data visualization with R and markdown reports.
- Shared knowledge and findings by writing technical publications with  $\text{\LaTeX}$  and presenting at conferences.
- Developed materials and taught exercise sections for Speech Science course at the master's level, providing instruction and guidance to students.
- Advocated and implemented reproducible research practices to ensure the integrity and transparency of findings with Git for version control and GitHub for hosting repositories.

## EDUCATION

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### Saarland University

Saarbrücken, Germany

Ph.D. in Phonetics

2020–2023

- Thesis: “Evaluating pause particles and their functions in natural and synthesized speech in laboratory and lecture settings”
- Area of Study: Language Modeling and Speech Synthesis
- Advisor: Bernd Möbius

### Waseda University

Tokyo, Japan

M.A. in International Culture and Communication Studies

2018–2020

- Thesis: “Comparing Phonetic Parameters within Comprehensibility: A Perceptual Judgment Study of Japanese-Accented English by different L1 backgrounds”

- Area of Study: Speech Communication and Language Acquisition
- Advisor: Mariko Kondo

## University of Minnesota

Minneapolis, USA

B.A. in Linguistics

- Thesis: “A Comprehensive Analysis of Rendaku”
- Advisor: Brian Reese

## PUBLICATIONS

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- Elmers, Mikey.** (2023). Evaluating pause particles and their functions in natural and synthesized speech in laboratory and lecture settings (Doctoral dissertation). Saarland University.
- Elmers, M., & Székely, É.** (2023). The impact of pause-internal phonetic particles on recall in synthesized lectures. *accepted: 12th ISCA Speech Synthesis Workshop (SSW)*.
- Elmers, M., O'Mahony, J., & Székely, É.** (2023). Synthesis after a couple PINTs: Investigating the role of pause-internal phonetic particles in speech synthesis and perception. *accepted: Interspeech*.
- Elmers, M.** (2023). Pause particles influencing recollection in lectures. *accepted: Proc. ICPhS*.
- Elmers, M.** (2022). Comparing detection methods for pause-internal particles. In O. Niebuhr, M. S. Lundmark, & H. Weston (Eds.), *Studientexte zur sprachkommunikation: Elektronische sprachsignalverarbeitung 2022* (pp. 204–211). TUDpress, Dresden.
- Elmers, M., Werner, R., Muhlack, B., Möbius, B., & Trouvain, J.** (2021a). Take a Breath: Respiratory Sounds Improve Recollection in Synthetic Speech. *Proc. Interspeech 2021*, 3196–3200.
- Muhlack, B., **Elmers, M.**, Drenhaus, H., Trouvain, J., van Os, M., Werner, R., Ryzhova, M., & Möbius, B. (2021). Revisiting Recall Effects of Filler Particles in German and English. *Proc. Interspeech 2021*, 3979–3983.
- Elmers, M., Werner, R., Muhlack, B., Möbius, B., & Trouvain, J.** (2021b). Evaluating the effect of pauses on number recollection in synthesized speech. *Elektronische Sprachsignalverarbeitung 2021, Tagungsband der 32. Konferenz*, 289–295.

## SKILLS

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- **Technical Skills:** R, SQL, Python, Git, Praat, L<sup>A</sup>T<sub>E</sub>X, Microsoft, Linux
- **Research Skills:** Machine Learning, Statistics, Research Methods
- **Certification:** Data Analyst in SQL, DataCamp

## LANGUAGES

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- **English:** Native
- **Japanese:** Beginner

## SCHOLARSHIPS AND AWARDS

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| • Azusa Ono Memorial Scholarship, Waseda University                             | 2018 |
| • Foreign Language and Area Studies (FLAS) Scholarship, University of Minnesota | 2017 |

## INVITED TALKS

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| • International Workshop on Phonetic and Phonological Processing and Learning, University of Tsukuba | 2023 |
| – Title: Pause particles in speech synthesis   |      |