

Mikey Elmers, Ph.D

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SUMMARY

Experienced researcher and educator with a strong background in experimental design, data analysis, and language-focused research. Skilled in developing and delivering engaging instruction informed by data-driven insights. Proficient in Python, R, and SQL, with expertise in statistical analysis, coding, and data visualization.

EXPERIENCE

Woven by Toyota

Research Engineer

Tokyo, Japan
2025–Present

- Research and development for remote communication.

Kyoto University

Researcher

Kyoto, Japan
2023–2025

- Improved naturalness of spoken dialogue systems through data-driven analysis, linguistic modeling, and iterative system optimization.
- Led end-to-end analytics projects: Translated complex research problems in data-driven solutions by defining objectives, designing research questions, identifying appropriate datasets, performing data wrangling, exploratory analysis, and statistical modeling to extract actionable insights.
- Developed interactive dashboards and automated reports in Python and R, enabling technical and non-technical audiences to explore data and make informed strategic decisions.
- Demonstrated rapid adaptability and technical versatility, frequently mastering new tools, programming languages, and analytical methods to support evolving project needs.
- Served as subject matter expert in speech science and speech technology across multiple projects, consistently onboarding to new domains quickly and contributing expertise in experimental design, data interpretation, and metric development.

Saarland University

Research Assistant

Saarbrücken, Germany
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.
- Designed experiments, collected data, performed statistical analyses for data visualization with R and markdown reports.
- Shared knowledge and findings by writing technical publications 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

Saarland University

Ph.D. in Phonetics

Saarbrücken, Germany

2023

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

Waseda University

M.A. in International Culture and Communication Studies

Tokyo, Japan

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

B.A. in Linguistics

Minneapolis, USA

2018

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

PUBLICATIONS

- Inoue, K., **Elmers, M.**, Fu, Y., Pang, Z. H., Lala, D., Ochi, K., & Kawahara, T. (2025). Prompt-Guided Turn-Taking Prediction [Accepted]. *SIGDIAL 2025*.
- Elmers, M.**, Inoue, K., Lala, D., & Kawahara, T. (2025). Triadic Multi-party Voice Activity Projection for Turn-taking in Spoken Dialogue Systems [Accepted]. *Interspeech 2025*.
- Pang, Z. H., Fu, Y., Lala, D., **Elmers, M.**, Inoue, K., & Kawahara, T. (2025). Human-like embodied AI interviewer: Employing android ERICA in real international conference. *Proceedings of the 31st International Conference on Computational Linguistics: System Demonstrations*, 136–150.
- Lala, D., Inoue, K., Kawai, H., Pang, Z. H., **Elmers, M.**, & Kawahara, T. (2024). Development and evaluation of a semi-autonomous parallel attentive listening system. *2024 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, 1–6.
- Elmers, M.**, Inoue, K., Lala, D., Ochi, K., & Kawahara, T. (2024). Analysis and detection of differences in spoken user behaviors between autonomous and wizard-of-oz systems. *2024 27th Conference of the Oriental COCOSDA International Committee for the Co-ordination and Standardisation of Speech Databases and Assessment Techniques (O-COCOSDA)*, 1–6.
- Elmers, M.** (2023a). 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. *12th ISCA Speech Synthesis Workshop (SSW2023)*, 204–210.
- 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. *Interspeech 2023*, 4843–4847.
- Elmers, M.** (2023b). Pause particles influencing recollection in lectures. *Proceedings of the 20th International Congress of Phonetic Sciences – ICPHS 2023*, 37–41.
- Elmers, M.** (2022). Comparing detection methods for pause-internal particles. *Studentexte zur Sprachkommunikation: Elektronische Sprachsignalverarbeitung 2022*, 204–211.
- Elmers, M.**, Werner, R., Muhlack, B., Möbius, B., & Trouvain, J. (2021a). Take a Breath: Respiratory Sounds Improve Recollection in Synthetic Speech. *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. *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

- **Technical Skills:** R, SQL, Python, Git, Praat, L^AT_EX, Mac, Microsoft, Linux
- **Research Skills:** Machine Learning, Statistics, Research Methods
- **Certification:** Machine Learning Scientist in Python, DataCamp; Data Analyst in SQL, DataCamp

LANGUAGES

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

SCHOLARSHIPS AND AWARDS

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

INVITED TALKS

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|---|------|
| • Language Engineering Lecture Series, Alexandria University (virtual) | 2025 |
| – Title: Analysis and Detection of Differences in Spoken User Behaviors between Autonomous and Wizard-of-Oz Systems | |
| • International Workshop on Phonetic and Phonological Processing and Learning, University of Tsukuba | 2023 |
| – Title: Pause particles in speech synthesis | |

TEACHING

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|---|-------------|
| • Teaching Assistant at Saarland University
<i>Speech Science (Excercise Section)</i> | Winter 2023 |
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REVIEWER

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| • CCMI
<i>Cross-Cultural Multimodal Interaction</i> | 2025 |
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- Interspeech 2025
26th edition of the Interspeech Conference
- YRRSDS 2024–2025
Young Researchers' Roundtable on Spoken Dialogue Systems
- SIGDIAL 2024–2025
Meeting of the Special Interest Group on Discourse and Dialogue
- YFRSW 2023–2024
Young Female Researchers in Speech Workshop