Mikey Elmers

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SUMMARY

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

EXPERIENCE

Kyoto University — Kyoto, Japan
Researcher — 2023–Present

- 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 — Saarbrücken, Germany
Research Assistant — 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 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 Science and Technology
- 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

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. *Studientexte 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, LaTeX, 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

- 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

- **Teaching Assistant** at Saarland University — Winter 2023
  Speech Science (Excercise Section)

Reviewer

- Interspeech — 2025
  26th edition of the Interspeech Conference
- SIGDIAL — 2024
  Meeting of the Special Interest Group on Discourse and Dialogue
- YFRSW — 2023–2024
  Young Female Researchers in Speech Workshop