## Anna Seo Gyeong Choi

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## Research interests

AI Ethics, Algorithmic Fairness, Speech/Signal Processing, Clinical Speech Biomarker

### Education

2024.08

Summer Intern

of foreign-accented speech

	Education
2021.08 – 2026.05 (Expected)	Cornell University Ph.D. in Information Science M.Sc. in Information Science (2021 – 2024) Committee: Allison Koenecke (Chair), Matthew Wilkens, Marten van Schijndel
2019.03 – 2021.08	Seoul National University M.A. in English Language and Literature Thesis: Analysis of Lexical Stress of Korean-accented English and Spanish-accented English for Accent Classification Committee: Minhwa Chung (Chair), Sunhee Kim, Yongwon Lee
2015.03 – 2019.02	Seoul National University B.A. in Hispanic Language and Literature, cum laude B.A. in English Language and Literature, cum laude
	Experience
2025.09 – present	Kotoba Technologies  External Collaborator  Full stack Korean text-to-speech model development and iterative improvements of synthetic data generation
2025.05 – present	Rev AI Speech Science Intern Working with Verbatim/Non-verbatim/Legal mode specialized speech-to-text models for speech dysfluencies
2024.09 – 2025.08	University of Pennsylvania Visiting Scholar (Remote) Working with Linguistic Data Consortium & UPenn Hospital on clinical projects, including autism-, schizophrenia-, and neurodegeneration-related projects
2024.06 -	NAVER Cloud

Worked with Speech-to-Text teams (NSpeech, NEST) on Kaldi & PyTorch based modeling

### Working papers

In Preparation ClinSpeech: A Holistic Benchmark for evaluating ASR Fairness in Clinical Con-

versations

Anna Seo Gyeong Choi, Oresis Papakyriakopoulos, Allison Koenecke, & Alessandro

**Fabris** 

Under Review PEEC: The Protected Entities Ethics Checklist for Collecting Speech Data from

**Vulnerable Clinical Populations** 

Anna Seo Gyeong Choi, Sunghye Cho, & Iris Nowenstein

Under Review Pitfalls of Auditing Practices in Automatic Speech Recognition Technologies: A

Case Study of People with Aphasia

Katelyn X. Mei\*, Anna Seo Gyeong Choi\*, Hilke Schellmann, Mona Sloane, & Allison

Koenecke (\* equal contribution)

In Submission SpeechSpectrum: A Framework for User-Controlled Speech-to-Text Represen-

tation Along the Linguistic Fidelity Spectrum

Anna Seo Gyeong Choi\*, Maria Teleki\*, Miguel del Rio Fernandez, James Caverlee &

Allison Koenecke (\* equal contribution)

#### **Publications**

All conference proceedings are peer-reviewed with full paper

2025 (To Analyzing Dialectical Biases in LLMs for Knowledge and Reasoning Bench-

appear) marks

Eileen Pan, Anna Seo Gyeong Choi, Maartje Ter Hoeve, Skyler Seto, & Allison Koe-

necke

Proceedings of Empirical Methods in Natural Language Processing (EMNLP) Findings

2025 (To Fairness of Automatic Speech Recognition: Looking Through a Philosophical

appear) Len

Anna Seo Gyeong Choi & Hoon Choi

Proceedings of AAAI/ACM Conference on AI, Ethics, and Society (AIES)

2025 Comparative Evaluation of Acoustic Feature Extraction Tools for Clinical

**Speech Analysis** 

Anna Seo Gyeong Choi, Alex Richardson, Ryan Partlan, Sunny X. Tang†,& Sunghye

Cho† († equal contribution)

Proceedings of Interspeech

2025 Reasoning-Based Approach with Chain-of-Thought for Alzheimer's Detection

**Using Speech and Large Language Models** 

Chanwoo Park, **Anna Seo Gyeong Choi**, Sunghye Cho, & Chanwoo Kim

Proceedings of Interspeech

## 2025 Data-Driven Mispronunciation Pattern Discovery for Robust Speech Recognition

**Anna Seo Gyeong Choi**\*, Jonghyeon Park\*, & Myungwoo Oh (\* equal contribution) *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)* 

## 2024 Quantification of Automatic Speech Recognition System Performance on d/Deaf and Hard of Hearing Speech

Robin Zhao\*, **Anna Seo Gyeong Choi**\*, Allison Koenecke†, & Anäis Rameau† (\*, † equal contribution)

The Laryngoscope

#### 2024 Careless Whisper: Speech-to-Text Hallucination Harms

FAccT

Allison Koenecke, **Anna Seo Gyeong Choi**\*, Katelyn X. Mei\*, Hilke Schellmann†, & Mona Sloane† (\*, † equal contribution)

Proceedings of ACM Conference on Fairness, Accountability, and Transparency (ACM

### 2024 KoFREN: Comprehensive Korean Word Frequency Norms Derived from Large Scale Free Speech Corpora

Jinseo Kim, Anna Seo Gyeong Choi, & Sunghye Cho

Proceedings of Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING)

### 2024 Crosslinguistic Acoustic Feature-based Dementia Classification using Advanced Learning Architectures

**Anna Seo Gyeong Choi**, Jinseo Kim, Seo-hee Kim., Minseok Baek & Sunghye Cho Proceedings of Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING) Workshop on Resources and Processing of Linguistic, Para-linguistic and Extra-linguistic Data from People with Various Forms of Cognitive/Psychiatric/Developmental Impairments (RaPID-5)

#### 2023 Augmented Datasheets for Speech Datasets and Ethical Decision-Making

Orestis Papakyriakopoulos\*, **Anna Seo Gyeong Choi**\*, William Thong, Dora Zhao, Jerome Andrews, Rebecca Bourke, Alice Xiang†, & Allison Koenecke† (\*, † equal contribution)

Proceedings of ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT)

Building Korean Conversational Speech Data in Emergency Medical Domain Kim, Sunhee., Jooyeong Lee, **Seo Gyeong Choi**, Seunghun Ji, Jeemin Kang, Jongin Kim, et al.

Phonetics and Speech Sciences, 12 (4)

#### Non-Archival Presentations

## Jul 2025 Pitfalls of Auditing Practices in Automatic Speech Recognition Technologies: A Case Study of People with Aphasia (Oral)

11th International Conference on Computational Social Science (IC2S2 '25)

# Jul 2023 Auditing Korean Speech Datasets for Dialectal Fairness in Speech-to-Text Applications (Poster)

9th International Conference on Computational Social Science (IC2S2 '23)

Jul 2023	Auditing Korean Speech Datasets for Dialectal Fairness in Speech-to-Text Applications (Poster)
	9th International Conference on Computational Social Science (IC2S2 '23)
Jul 2023	<b>Augmented Datasheets for Speech Datasets and Ethical Decision-Making</b> (Poster) 9th International Conference on Computational Social Science (IC2S2 '23)
Apr 2022	Phoneme-to-phoneme (P2P) lexicon expansion technology for Brazilian Portuguese (Poster)  Mid-Atlantic Student Colloquium on Speech, Language and Learning (MASC-SLL 2022)
N. 2222	
Nov 2020	Building Korean Conversational Speech Data in Emergency Medical Domain (Oral)
	Korean Conference on Speech Sciences
Oct 2019	<b>Stereotypical dialects in </b> <i>Zootopia</i> <b> and its implications</b> (Oral) <i>Coalition of English Departments in Asia</i>
	Awards
2025	Cornell Center for Social Science Qualitative and Interpretive Research Institute Small Research Grant (Cornell University)
2023	Microsoft Azure Cloud Computing Grant (Cornell University)
2022	Cornell Center for Social Science Grant (Cornell University)
2021	Sage Fellowship (Cornell University)
2019 - 2020	Graduate Student Instructor Scholarship (Seoul Nat'l Univ.)
2017 - 2019	CORE Undergraduate Scholarship (Seoul Nat'l Univ.)
2017	CORE Exchange Students Scholarship (Seoul Nat'l Univ.)
2015	Scholarship for Academic Excellence (Seoul Nat'l Univ.)
	Teaching experience
Cornell Univ.	LING 1101: Introduction to Linguistics, SPAN 1210: Elementary Spanish I, INFO 2950: Introduction to Data Science
Seoul Nat'l Univ.	Graduate Seminar on Applied Linguistics, Graduate Course on English Phonology, English Phonetics, English and Society