

ALTON CHAO

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Education

Ph.D. Speech, Language & Hearing Sciences

Purdue University

Aug. 2025 - May 2030

Advisor: Dr. Jiyeon Lee

Bachelors of Science, Computer Science and Engineering

University of California, Merced

Aug. 2022 - May 2025

GPA 3.944 / 4.0 | Summa Cum Laude

Awards & Fellowships

2025-2029, Purdue Presidential Excellence Ph.D. Fellowship

2025, Academy of Aphasia Young Investigator Fellowship

Research Experience

PhD Student, Aphasia Recovery Lab

Purdue University | Aug. 2025 - Current

Principal Investigator: Dr. Jiyeon Lee

Research Assistant, Language, Interaction and Cognition Lab

UC Merced | Jan. 2024 - August 2025

Principal Investigator: Dr. Rachel Ryskin

Research Intern, Machine Intelligence, Interaction and Imagination Lab

UC Merced | May 2025 - August 2025

Principal Investigator: Dr. Ross Greer

Publications

Peer-Reviewed Journal Articles

1. **Chao, A.** (2023). Socioeconomic Status and Mental Health of Children. *UC Merced Undergraduate Research Journal*, 15(1). <http://dx.doi.org/10.5070/M415160815>

Peer-Reviewed Conference Proceedings

1. **Chao, A.**, Maquiling, E., Chao, E., Sanjeev, R., Bossen, Tonko., & Greer, R. Automated Context-Aware Navigation Support for Individuals with Visual Impairment Using Multimodal Language Models in Urban Environments. *Proceedings of the International Conference on Computer Vision*
2. Ornelas, R., **Chao, A.**, Gupta, S., Chao, E., & Greer, R. Improving Event-Phase Captions in Multi-View Urban Traffic Videos via Prompt-Aware LoRA Tuning of Vision Language Models. *Proceedings of the International Conference on Computer Vision*
3. **Chao, A.**, Cain, E., & Ryskin, R. Language experience and prediction across age groups: evidence from diachronic fine-tuning of language models. *Proceedings of the 47th Annual Conference of the Cognitive Science Society*

Presentations

Invited Talks

1. **Chao, A.** Artificial Intelligence in Aphasia Research and Recovery. *Speech-Language Disorders in Health Care Settings*, Purdue University
2. **Chao, A.**, Cain, E., & Ryskin, R. Language experience and prediction across age groups: evidence from diachronic fine-tuning of language models. *California Meeting on Psycholinguistics (CAMP 8)*, UC Davis
3. **Chao, A.**, Maquiling, E., Chao, E., Sanjeev, R., Bossen, Tonko., & Greer, R. Automated Context-Aware Navigation Support for Individuals with Visual Impairment Using Multimodal Language Models in Urban Environments. *International Conference on Computer Vision*, Honolulu, Hawaii
4. **Chao, A.** Automated Context-Aware Navigation Support for Individuals with Visual Impairment Using Multimodal Language Models in Urban Environments. *CITRIS Workforce Innovation Symposium*, UC Merced
5. **Chao, A.**, Maquiling, E., Chao, E., Gupta, S., Sanjeev, R., Bossen, Tonko., & Greer, R. Automated Context-Aware Navigation Support for Individuals with Visual Impairment Using Multimodal Language Models in Urban Environments. *IEEE/CVF Conference on Computer Vision and Pattern Recognition*, Nashville, Tennessee
6. **Chao, A.**, Cain, E., & Ryskin, R. Language experience and prediction across age groups: evidence from diachronic fine-tuning of language models. *Leveraging California's Linguistic Diversity to Improve Large Language Models*, UC Merced

Conference Posters

1. **Chao, A.**, Cain, E., & Ryskin, R. Language experience and prediction across age groups: evidence from diachronic fine-tuning of language models. 63rd Annual Meeting of the Academy of Aphasia. San Diego, CA
2. **Chao, A.**, Maquiling, E., Chao, E., Sanjeev, R., Bossen, Tonko., & Greer, R. Automated Context-Aware Navigation Support for Individuals with Visual Impairment Using Multimodal Language Models in Urban Environments. International Conference on Computer Vision, Honolulu, Hawaii
3. Ornelas, R., **Chao, A.**, Gupta, S., Chao, E., & Greer, R. Improving Event-Phase Captions in Multi-View Urban Traffic Videos via Prompt-Aware LoRA Tuning of Vision Language Models. International Conference on Computer Vision, Honolulu, Hawaii
4. **Chao, A.**, Maquiling, E., Chao, E., Gupta, S., Sanjeev, R., Bossen, Tonko., & Greer, R. Automated Context-Aware Navigation Support for Individuals with Visual Impairment Using Multimodal Language Models in Urban Environments. IEEE/CVF Conference on Computer Vision and Pattern Recognition. Nashville, Tennessee
5. **Chao, A.**, Cain, E., & Ryskin, R. Language experience and prediction across age groups: evidence from diachronic fine-tuning of language models. 47th Annual Conference of the Cognitive Science Society. San Francisco, CA
6. Cain, E., **Chao, A.**, & Ryskin, R. *Diachronic Language Change Explains Apparent Age-Related Differences in Information-Theoretic Efficiency*. California Meeting on Psycholinguistics (CAMP 7), UC San Diego

Professional Service

1. Reviewer, DriveX Workshop for the 2025 International Conference on Computer Vision