Michael Louis Smith, Au.D.

E-mail: smit8854@umn.edu

Education

Current	**University of Minnesota, Minneapolis, Minnesota** **Speech-Language-Hearing Sciences** Doctor of Philosophy (Ph.D.) GPA: 4.0 September 2020 - Present
2016-2020	**University of Washington, Seattle, Washington** **Speech & Hearing Sciences** Doctor of Audiology (Au.D.) GPA: 3.7 Graduation Date: June 13th, 2020

Employment

2020-Present	**University of Minnesota, Department of Speech-Language-Hearing Sciences** **Minneapolis, Minnesota** Position: Graduate Student / Teaching Assistant
2019-2020	**Stanford Ear Institute, Audiology** **Palo Alto, California** Position: Audiology Fellow
2018-2019	**University of Washington, Linguistics & Phonetics** **Seattle, Washington** Position: Student Research Assistant
2016-2018	**University of Washington, Speech & Hearing Sciences** **Seattle, Washington** Position: Student Research Assistant

Research Experience

2020-Present	**University of Minnesota,** **Minneapolis, Minnesota** **Role:** Ph.D. Student **Dissertation:** The impact of extra effort and fatigue in listeners who wear a cochlear implant **Supervisor:** Matthew B. Winn, Ph.D. / Au.D **Responsibilities:** Development of research questions and experimental hypotheses, literature review, stimulus creation, experimental testing, statistical analysis, manuscript preparation
2019-2020	**Stanford Ear Institute, Audiology** **Palo Alto, California** **Role:** Audiology Fellow **Project Title:** Speech in noise performance in patients with conductive and mixed hearing loss

Supervisor: Matthew Fitzgerald, Ph.D., CCC-A
Responsibilities: Synthesizing data from a large clinical database, data analysis, preparing data for conference presentation and publication.

2018-2019	**University of Washington, Linguistics and Phonetics** **Seattle, Washington** **Role:** Research Assistant **Project Title:** Lombard effect in Japanese L2 speakers of English **Supervisor**: Richard Wright, Ph.D. **Responsibilities**: Recruiting participants and collecting experimental data, annotating data in PRAAT, analysis and modeling of data in R
2017-Present	**University of Washington, Speech & Hearing Sciences** **Seattle, Washington** **Role:** Au.D. Capstone Project **Project Title:** Phoneme categorization using simulated cochlear implant insertion depths **Supervisor**: Matthew Winn, Ph.D. Au.D. **Responsibilities**: Development of research question and experimental hypothesis, literature review, stimulus creation, experiment testing, data analysis, writing of the manuscript.

Teaching Experience

2022	**University of Minnesota** **Role:** Co-Teacher **Class Title:** Hearing Aids I **Supervisors:** Dr. Kerry Witherell, Au.D.; Dr. Peggy Nelson, Ph.D. **Responsibilities:** Creating class material for lecture, creating quizzes assignments and final exam, grading class materials, answering student questions, and providing feedback for students.
2021	**University of Minnesota** **Role:** Teaching Assistant **Class Title:** Rehabilitative Audiology **Supervisor:** Dr. Evelyn Davies-Venn, Au.D., Ph.D. **Responsibilities:** Answering student questions during lecture, providing feedback on student assignments, holding office hours.
2020	**University of Minnesota** **Role:** Teaching Assistant **Class Title:** Introduction to Neuroscience **Supervisor:** Dr. Natalie Covington, Ph.D. **Responsibilities:** Providing feedback on student writing assignments, organizing and leading exam review sessions, holding office hours.
2019	**University of Washington** **Role:** Teaching Assistant **Class Title:** Research Methods **Supervisor:** Kelly Tremblay, Ph.D.

Responsibilities: Evaluating, grading, and providing feedback on student assignments, including: critiques and reflections about research articles, research question/hypothesis development, research design, and providing one on one teaching assistance.

Leadership Experience

2020 – 2022

Acoustical Society of America
Role: Student Council Representative
Responsibilities: Monthly meetings planning student activities at ASA, running the student both during the conference, community outreach, representative at technical committee meetings, answering student questions who are interested in getting involved with the ASA

Funding

2024-2026

National Institute of Health Loan Repayment Program
Award: 1L30DC022125
Amount: $95,000

2023-2025

National Institute on Deafness and Other Communication Disorders
Title: "The impact of extra effort and fatigue in listeners who wear a cochlear implant"
Award: F32 DC 021076
Amount: $146,384

2021-2023

National Science Foundation Research Training Program
Title: NRT Fellow
Amount: $34,000 per year

Awards

2023

American Auditory Society
Title: *Resident & Graduate Student Mentored Research Poster Award*
Amount: $1,000.00

2020

Association for Research in Otolaryngology San Jose, CA
Title: Student Poster Blitz 2nd Place Winner (out of 40)
Amount: $100

2019

Conference on Implantable Auditory Prostheses Lake Tahoe, CA
Title: *Student Travel Award*
Amount: $1200.00

2018

1) **Acoustical Society of America Victoria, Canada**
Title: *Student Transportation Subsidy Award*
Amount: $112.00
2) **Olswang Graduate Student Travel Award**
Title: *Department Travel Award used for ASA fall 2018*
Amount: $500

2017

American Auditory Society
Title: *Resident & Graduate Student Mentored Research Poster Award*
Amount: $1,000.00

Publications

Smith, M.L., & Winn, M.B. (In-Revision). Repairing misperceptions of words early in a sentence is more effortful than repairing later words, especially for listeners with cochlear implants. Trends in Hearing

Smith, M. L., Winn, M. B., & Fitzgerald, M. B. (2024). A Large-Scale Study of the Relationship Between Degree and Type of Hearing Loss and Recognition of Speech in Quiet and Noise. Ear and Hearing, 45(4), 915-928. DOI: 10.1097/AUD.0000000000001484

Fitzgerald, M. B., Ward, K. M., Gianakas, S. P., **Smith, M. L.**, Blevins, N. H., & Swanson, A. P. (2024). Speech-in-Noise Assessment in the Routine Audiologic Test Battery: Relationship to Perceived Auditory Disability. Ear and Hearing, 45(4), 816-826. DOI: 10.1097/AUD.0000000000001472

Ancel, E. E., **Smith, M. L.,** Rao, V. V., & Munson, B. (2023). Relating Acoustic Measures to Listener Ratings of Children's Productions of Word-Initial /ɹ/ and /w/. Journal of Speech, Language, and Hearing Research, 1-15.

Thai, A., Tran, E., Swanson, A., Fitzgerald, M.B., Blevins, N.H., Ma, Y., **Smith, M.L.**, Larky, J.B., & Alyono, J.C. (2022). Outcomes in patients meeting cochlear implant criteria in noise but not in quiet. *Otology & Neurotology*, *43*(1), 56-63. DOI:10.1097/MAO.0000000000003351

Smith, M. L., & Winn, M. B. (2021). Individual Variability in Recalibrating to Spectrally Shifted Speech: Implications for Cochlear Implants. *Ear & Hearing*, 42(5), 1412-1427. DOI: 10.1097/AUD.0000000000001043

Dimitrijevic, A., **Smith, M. L.**, Kadis, D. S., & Moore, D. R. (2019). Neural indices of listening effort in noisy environments. *Scientific reports*, *9*(1), 1-10. DOI: 10.1038/s41598-019-47643-1

Dimitrijevic, A., **Smith, M. L.**, Kadis, D. S., & Moore, D. R. (2017). Cortical alpha oscillations predict speech intelligibility. *Frontiers in human neuroscience*, *11*, 88. DOI: 10.3389/fnhum.2017.00088

Han, J.H., Zhang, F., Kadis, D.S., Houston, L.M., Samy, R.N., **Smith, M.L.,** and Dimitrijevic, A. (Nov,2016). Auditory cortical activity to different voice onset times in cochlear implant users. *Clinical Neurophysiology,*127,1603-1617. doi:10.1016/j.clinph.2015.10.049

Conference Talk Presentations

Smith, M.L., Qian, Z.J., Tran, E.D., Blevins, N.H., & Fitzgerald, M.B. (2020, January) *Speech Recognition in quiet and noise with conductive, mixed, and sensorineural hearing loss.* Association for Research in Otolaryngology Poster Blitz, San Jose, California.

Smith, M.L., & Winn, M.B. (2018, September) *Phoneme categorization using simulated cochlear implant insertion depths.* Midwest CRASH conference, Madison, Wisconsin.

Peer Reviewed Poster Presentations

Smith, M.L., & Winn, M.B. (2023, July). *Measuring the timing and duration of listening effort needed to mentally repair misperceptions in Cochlear implant listeners.* Poster session presented at the 40th Conference on Implantable Auditory Prostheses, Lake Tahoe, California.

Smith, M.L., & Munson, B. (2023, May). *Validating Acoustic Predictors of Sentence Intelligibility using a Racially Diverse Corpus*. Poster session presented at the 184th meeting of the Acoustical Society of America, Chicago, Illinois.

Smith, M.L., & Winn, M.B. (2023, March). *Repeated moments of listening effort build to listening fatigue.* Poster session presented at the 50th annual American Auditory Society, Scottsdale, Arizona.

Smith, M.L., & Winn, M.B. (2022, May). *The difference between using context to predict versus using context to repair: a study of listening effort.* Poster session presented at the 182nd meeting of the Acoustical Society of America, Denver, Colorado.

Smith, M.L., & Winn, M.B. (2022, February). *Predictive context is helpful, but retroactive context is effortful.* Poster session presented at the 49th annual American Auditory Society, Scottsdale, Arizona.

Smith, M.L., & Winn, M.B. (2021, November). *Classifying and quantifying individual differences in phonetic categorization patterns.* Poster session presented at the 181st Meeting of the Acoustical Society of America, Seattle, Washington, USA.

Ancel, E.E., **Smith, M.L.**, Rao, V.N.V., & Munson, B. (2021, November). *Does F3-F2 Distance predict transcriptions of preschoolers' /r/ productions?* Poster session presented at the 181st Meeting of the Acoustical Society of America, Seattle, Washington, USA.

Smith, M.L., Qian, Z.J., Tran, E.D., Blevins, N.H., & Fitzgerald, M.B. (2020, January) *Speech Recognition in quiet and noise with conductive, mixed, and sensorineural hearing loss.* Poster session presented at the Association for Research in Otolaryngology, San Jose, California.

Smith, M.L., & Winn, M.B. (2019, July) *Individual differences in recalibrating to upward spectral shifts.* Poster session presented at the Conference on Implantable Auditory Prostheses, Lake Tahoe, California.

Smith, M.L., & Winn, M.B. (2018, November) *Phoneme categorization using simulated cochlear implant insertion depths.* Poster session presented at the 176th Acoustical Society of America conference, Victoria, Canada.

Smith, M.L., Lee, M.L., Miler, C.W., Wu, Y.H., Bentler, R.A., & Tremblay, K.T. (2017, February) *Variations in speech-in-noise thresholds as it relates to central inhibitory function.* Poster session presented at the 44th annual American Auditory Society, Scottsdale, Arizona.