

Jing Shen
CURRICULUM VITAE

Assistant Professor
Department of Communication Sciences and Disorders
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Education

- 2013 Ph.D. in Experimental Psychology
 University of California, San Diego
 Thesis Title: Processing of Pitch Height Information in Mandarin Tone Perception
- 2004 M.S. in Psychology (Social and Personality)
 East China Normal University, Shanghai, China
 Thesis Title: Relationship between Personality Type and Music Preference in Chinese College Students
- 2001 B.A. in Political Science (minor in Psychology)
 East China Normal University, Shanghai, China

Academic and Research Experience

- 2018-2020 Assistant Professor
 Speech, Language and Hearing Sciences, Western Michigan University
- 2017-2018 Research Assistant Professor
 Communication Sciences and Disorders, Northwestern University
- 2015-2017 National Institutes of Health NRSA Postdoctoral Fellow
 Hearing Aid Laboratory, Northwestern University
- 2013-2015 Postdoctoral Researcher
 Hearing Aid Laboratory, Northwestern University

Awards and Grants Funded

Early Career Research Award (National Institute on Deafness and Other Communication Disorders, R21 ECR, 2019-2023, Role: PI)

Ruth L. Kirschstein Postdoctoral National Research Service Award (National Institute on Deafness and Other Communication Disorders, F32, 2015-2017, Role: PI)

Lesson for Success Conference Attendee (American Speech-Language-Hearing Association, 2016)

Knowles Hearing Center Postdoctoral Travel Award (Northwestern University, 2017)

Postdoctoral Professional Development Travel Award (Northwestern University, 2015)

Young Scientist Award (International Commission of Acoustics & Acoustical Society of America, 2010)

Graduate Student Travel Grant (Institute for International, Comparative, and Area Studies, University of California, 2010)

Graduate Student Travel Grant (Anderson Travel and Research Fund, Department of Psychology, University of California, 2011)

Grants Submitted

National Institute on Deafness and Other Communication Disorders, R01, (October 2023, Role: PI)

National Institute on Deafness and Other Communication Disorders, R01, (March 2023, Role: Co-I, PI: Jamie Reilly)

National Institute on Deafness and Other Communication Disorders, R01, (October 2022, Role: PI)

American Hearing Research Foundation Discovery Grant (August 2021, Role: PI)

Publications (Peer-reviewed)

Asterisk denotes trainee

Fitzgerald, L.*, DeDe, G. & **Shen, J.** (under revision). Effects of Linguistic Context and Noise Type on Speech Comprehension.

Shen, J., & Wu, J. (in press). Recognition of Speech with Dynamic Pitch Manipulation in Noise: Effects of Manipulation Methods. *Journal of Speech, Language, and Hearing Research*.

Shen, J., Heller Murray, E., & Kulick, E. (2023). The Effect of Breathy Vocal Quality on Speech Intelligibility and Listening Effort in Background Noise. *Trends in Hearing*, 27. <https://doi.org/10.1177/23312165231206925>

Shen, J., Fitzgerald, L.*, & Kulick, E. (2022). Interactions between Acoustic Challenges and Processing Depth in Speech Perception as Measured by Task-evoked Pupil Response. *Frontiers in Psychology, 13*, 6099. <https://doi.org/10.3389/fpsyg.2022.959638>

Shen, J., & Wu, J. (2022). Speech Recognition in Noise Performance Measured Remotely Versus In-Laboratory from Older and Younger Listeners. *Journal of Speech, Language, and Hearing Research, 65*(6), 2391-2397. https://doi.org/10.1044/2022_JSLHR-21-00557

Shen, J., Weller, B. E., & Perales, J. C. (2022). Inclusion of Older Adults Who Experience Homelessness in Laboratory-Based Audiology Research: A Feasibility Study. *Ear and Hearing, 43*(2), 305-309. <https://doi.org/10.1097/AUD.0000000000001187>

Shen, J. (2021). Pupillary Response to Dynamic Pitch Alteration during Speech Perception in Noise. *The Journal of the Acoustical Society of America Express Letters, 1*(11), 115202. <https://doi.org/10.1121/10.0007056>

Shen, J. (2021). Older Listeners' Perception of Speech with Strengthened and Weakened Dynamic Pitch Cues in Background Noise. *Journal of Speech Language and Hearing Research, 64*, 348-358. https://doi.org/10.1044/2020_JSLHR-20-00116

Shen, J., Sherman, M., & Souza, P. (2020). Test Administration Methods and Cognitive Test Scores in Older Adults with Hearing Loss. *Gerontology, 1-9*. <https://doi.org/10.1159/000500777>

Shen, J., & Souza, P. (2019). The Ability to Glimpse Dynamic Pitch in Noise by Younger and Older Listeners. *The Journal of the Acoustical Society of America Express Letters, 146*(3), EL232-237. <https://doi.org/10.1121/1.5126021>

Shen, J., & Souza, P. (2018). On Dynamic Pitch Benefit for Speech Recognition in Speech Masker. *Frontiers in Psychology, 9*, 1967. <https://doi.org/10.3389/fpsyg.2018.01967>

Shen, J., & Souza, P. (2017). Do Older Listeners with Hearing Loss Benefit from Dynamic Pitch for Speech Recognition in Noise? *American Journal of Audiology, 26*, 462-466. https://doi.org/10.1044/2017_AJA-16-0137

Shen, J., & Souza, P. (2017). The Effect of Dynamic Pitch on Speech Recognition in Temporally Modulated Noise. *Journal of Speech Language and Hearing Research, 60*(9), 2725-2739. https://doi.org/10.1044/2017_JSLHR-H-16-0389

Shen, J., Anderson, M., Arehart, K., & Souza, P. (2016). Using Cognitive Screening Tests in Audiology. *American Journal of Audiology, 25*(4), 319-331. https://doi.org/10.1044/2016_AJA-16-0032

Ward, K., **Shen, J.,** Souza, P., & Grieco-Calub, T. (2016). Age-related Differences in Listening Effort During Degraded Speech Recognition. *Ear and Hearing, 38*(1), 74-84. <https://doi.org/10.1097/AUD.0000000000000355>

Shen, J., Wright, R., & Souza, P. (2016). On Older Listeners' Ability to Perceive Dynamic Pitch. *Journal of Speech Language and Hearing Research, 59*(3), 572-582. https://doi.org/10.1044/2015_JSLHR-H-15-0228

Souza, P., Arehart, K. H., **Shen, J.,** Anderson, M., & Kates, J. M. (2015). Working Memory and Intelligibility of Hearing-aid Processed Speech. *Frontiers in Psychology, 6*, 526. <https://doi.org/10.3389/fpsyg.2015.00526>

Deutsch, D., Li, X., & **Shen, J.** (2013). Absolute Pitch among Students at the Shanghai Conservatory of Music: A Large-scale Direct-test Study. *The Journal of the Acoustical Society of America*, 134, 3853-3859. <https://doi.org/10.1121/1.4824450>

Shen, J., Deutsch, D., & Rayner, K. (2013). On-line Perception of Mandarin Tones 2 and 3: Evidence from Eye Movements. *The Journal of the Acoustical Society of America*, 133, 3016-3029. <https://doi.org/10.1121/1.4795775>

Deutsch, D., Le, J., **Shen, J.**, & Henthorn, T. (2009). The Pitch Levels of Female Speech in Two Chinese Villages. *The Journal of the Acoustical Society of America Express Letters*, 125(5), EL208-EL213. <https://doi.org/10.1121/1.3113892>

Publications (Non peer-reviewed)

Souza, P., Schoof, T., **Shen, J.** (2017). Can Individual Cognitive Abilities Direct Audiology Treatment? *Audiology Today*, 29(2), 25-34.

Shen, J., Deutsch, D., & Le, J. (2015). The Effect of Overall Pitch Height on Mandarin Tone Identification. *Proceedings of Meetings on Acoustics*, 14, 060013.

Shen, J., & Kong, K. (2004). The Progress and Prospect of the Research of Nature and Nurture Controversy in Personality Development, *Psychological Science (Chinese)*, 27, 250-252.

Shen, J. (2003). A Review of Music Therapy and Its Related Psychological Research, *Psychological Science (Chinese)*, 26, 176-177.

Invited talks

Shen, J. (2023). Speech Perception by Adults with Age-related Hearing Loss: The Interplay between Acoustic and Linguistic Factors. Invited talk presented at the 17th Annual Eleanor M. Saffran Conference, Philadelphia, PA.

Shen, J. (2022). The Ear is Connected to the Brain: Aging and Cognition in the Audiology Clinic. Invited workshop presented at the New Jersey Speech-Language-Hearing Association Convention, Long Branch, NJ.

Souza, P., **Shen, J.** & Rallapalli, V. (2019). Cognitive Screening in the Audiology Clinic. Invited short course presented at the Annual Convention of American Speech-Language-Hearing Association, Orlando, FL.

Shen, J. (2019). The Influences of Hearing and Cognitive Abilities on Older Adults' Speech Perception under Challenging Conditions. Invited research talk presented at Hearing Research Center, Boys Town National Research Hospital, NE.

Souza, P., & **Shen, J.** (2018). Cognitive Screening in the Audiology Clinic. Invited workshop presented at the Duke Speech Pathology and Audiology, Duke University Medical Center, Durham, NC.

Shen, J., & Souza, P. (2017). Hearing Loss and Cognition: The Ear is Connected to the Brain. Invited talk presented at the American Academy of Otolaryngology-Head and Neck Surgery Annual Meeting, Chicago, IL.

Conference Presentations (National/International)

Asterisk denotes trainee

Feeney, M.*, Fitzgerald, L.*, DeDe, G. & **Shen, J.** (2023). Effects of Linguistic Context and Speech Masker on Speech Comprehension. Poster presented at the Scientific and Technology Meeting of the American Auditory Society 2023, Scottsdale, AZ.

Shen, J., Calandruccio, L., Liusie, A. & DeCecco, C.* (2022). The Influence of Linguistic Properties on Recognition of Naturalistic Speech in Noise. Poster presented at the 13th Speech in Noise Workshop 2022, Virtual.

Shen, J., Wu, J. (2021). Effects of Dynamic Pitch Manipulation Methods on Speech Perception in Noise by Older Listeners with Hearing Loss. Poster presented at the 181th Meeting of the Acoustical Society of America, Seattle WA.

Shen, J. (2021). Pupillary Response to Dynamic Pitch Manipulations During Speech Perception in Noise. Talk presented at the Scientific and Technology Meeting of the American Auditory Society 2021, Virtual.

Shen, J. (2019). The Relationship between the Perception of Spectral Information and the Effects of Dynamic Pitch on Older Individuals' Speech Recognition in Noise. Poster presented at the Aging and Speech Communication Conference, Tampa, FL.

Shen, J., Souza, P. (2019). A New Test for Measuring Perception of Dynamic Pitch Cues in Fluctuating Noise. Poster presented at the 17th Rhythm Production and Perception Workshop, Traverse City, MI.

Shen, J., Souza, P. (2019). Effect of Test Administration Methods on Cognitive Screening Results of Older Individuals with Hearing Loss. Poster presented at the Scientific and Technology Meeting of the American Auditory Society 2019, Scottsdale, AZ.

Shen, J., Rallapalli, V., & Souza, P. (2018). Effects of Multichannel Compression on Spectral Contrast of Vowels Processed by Real Hearing Aids. Poster presented at the International Hearing Aid Research Conference, Lake Tahoe, CA.

Shen, J., & Souza, P. (2017). Do Older Individuals Benefit from Dynamic Pitch for Speech Recognition in Speech Maskers? Talk presented at the Aging and Speech Communication Conference, Tampa, FL.

Shen, J., & Souza, P. (2017). The Relationship between Cognitive Functioning and Hearing Ability in Older Adults. Poster presented at the 21st IAGG World Congress of Gerontology and Geriatrics, San Francisco, CA.

Shen, J., & Souza, P. (2017). Does Dynamic Pitch Aid Older Listeners' Speech Recognition in Speech Maskers? Poster presented at the Scientific and Technology Meeting of the American Auditory Society 2017, Scottsdale, AZ.

Shen, J., & Souza, P. (2016). Do Older Listeners with Hearing Loss Benefit from Dynamic Pitch for Speech Recognition in Noise? Poster presented at the Hearing Across the Lifespan, Cernobbio, Lake Como, Italy.

Ward, K., **Shen, J.**, Souza, P., & Grieco-Calub, T. M. (2016). Comparing Behavioral Measures of Listening Effort Across the Lifespan. Poster presented at the American Auditory Society Meeting 2016, Scottsdale, AZ.

Shen, J., & Souza, P. (2016). Effects of Dynamic Pitch on Older Listeners' Speech Recognition in Noise. Poster presented at the American Auditory Society Meeting 2016, Scottsdale, AZ.

Ward, K., **Shen, J.,** Souza, P., & Grieco-Calub, T. (2015). Verbal Response Time in Children Systematically Varies with the Spectral Resolution of Speech. Talk presented at the 169th meeting of Acoustical Society of America, Pittsburg, PA.

Shen, J., Souza, P., Anderson, M., Arehart, K., Kates, J., & Muralimanohar, R. (2015). Can Cognitive Screening Tests Explain Recognition of Distorted Speech? Poster presented at the American Auditory Society Meeting 2015, Scottsdale, AZ.

Souza, P., & **Shen, J.** (2014). The Ear is Connected to the Brain: Aging and Cognition in the Audiology Clinic. Talk presented at the North Carolina Speech, Hearing and Language Association Fall Conference 2014, Raleigh, NC.

Shen, J., Wright, R., & Souza, P. (2014). Effect of Formant Characteristics on Older Listeners' Dynamic Pitch Perception. Poster presented at the 168th meeting of Acoustical Society of America, Indianapolis, IN.

Souza, P., Arehart, K., **Shen, J.,** Kates, J., Muralimanohar, R., & Anderson, M. (2014). Individual Sensitivity to Distortion from Combined Signal Processing. Talk presented at the International Hearing Aid Research Conference, Lake Tahoe, CA.

Shen, J., Deutsch, D., & Le, J. (2011). Overall Pitch Height as a Cue for Lexical Tone Perception. Poster session presented at the 162nd meeting of Acoustical Society of America, San Diego, CA.

Deutsch, D., Le, J., **Shen, J.,** & Li, X. (2011). Large-scale Direct-test Study Reveals Unexpected Characteristics of Absolute Pitch. Paper presented at the 162nd meeting of Acoustical Society of America, San Diego, CA.

Shen, J., Deutsch, D., & Rayner, K. (2010). Processing of Endpoint Pitch in Mandarin Tone Perception: An Eye Movement Study. Paper presented at the 20th International Congress on Acoustics, Sydney, Australia.

Conference Presentations (University/State)

Asterisk denotes student advisee

Chichilitti, G.*, Odd, K.* & **Shen, J.** (2023) On Perception of Continuous Speech in Noise. College of Public Health Research and Evidence Based Practice Day, Philadelphia, PA.

Feeney, M.*, Fitzgerald, L.*, DeDe, G. & **Shen, J.** (2023). Effects of Linguistic Context and Speech Masker on Speech Comprehension. Temple University Symposium for Undergraduate Research, Philadelphia, PA.

Liss, A.* & **Shen, J.** (2021). Validation of a Headphone Screening Test Using Qualtrics and Zoom. College of Public Health Research and Evidence Based Practice Day, Philadelphia, PA.

Shen, J. (2019). The Influences of Hearing and Cognitive Abilities on Older Adults' Speech Perception under Challenging Conditions. Research talk presented at the Fall Research

Colloquium, Department of Speech, Language, and Hearing Sciences, Western Michigan University, Kalamazoo, MI.

Shen, J., Souza, P. (2019). Effect of Test Administration Methods on Cognitive Screening Results of Older Individuals with Hearing Loss. Poster presented at the Biennial Diversity and Inclusion Conference, College of Health and Human Services, Western Michigan University, Kalamazoo, MI.

Souza, P., Rallapalli, V., **Shen, J.** (2019). Cognition in the Clinic: Should Cognitive Screening Be Part of the Clinical Battery? Talk presented at the Illinois Academy of Audiology, Naperville, IL.

Teaching and Mentoring

Sole Instructor

Foundations in Hearing Science

(Overview of hearing science topics for undergraduate students in CSD)

Undergraduate (size 20-30), Temple University, Spring 2022 and ongoing

Hearing Aids I

(Basic knowledge and skills required to select, fit, adjust, and validate hearing aids)

Audiology Doctoral class (size 6), Western Michigan University, Spring 2019

Hearing Aids II

(Overview of advanced signal processing features in modern hearing aids)

Audiology Doctoral class (size 7), Western Michigan University, Fall 2018, Fall 2019

Psychoacoustics

(Introduction to acoustics and psychoacoustics)

Audiology Doctoral class (size 6), Western Michigan University, Fall 2018, Fall 2019

Sound and Music Perception

(Introduction to auditory perception, topics including auditory physiology, psychoacoustics, and perception of acoustical cues in music).

Undergraduate class (class size 70), University of California, Spring 2011

Introduction to Statistics

(Overview of inferential statistics, topics including experimental design, data collection, data analysis and statistical inference).

Undergraduate class (class size 250), University of California, Spring 2012

Co-Instructor

Evaluation and Use of Amplification Systems

(Covering the basic knowledge and skills required to select, fit, adjust and validate hearing aids).

Audiology Doctoral class (class size 15), Northwestern University, Winter 2016

Research in Clinical Audiology

(Overview of clinical research process, including evidence-based practice).

Audiology Doctoral class (class size 15), Northwestern University, Fall 2014, Fall 2016, Fall 2017

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Guest Lecturer

Hearing Sciences

Undergraduate class (class size 40), Western Michigan University, Spring 2019

Introduction of Audiology

Undergraduate class (class size 30), Northwestern University, Winter 2017

Aging and Speech Communication

Undergraduate class (class size 4), Northwestern University, Spring 2017

Au.D. Capstone project mentor

2019-2020 Student: Christina Dreffein (Western Michigan University)

Title: The relationship between the perception of spectral information and the effects of dynamic pitch on older individuals' speech recognition in noise

2018-2019 Student: Harrison Westmore (Western Michigan University)

Title: A Comparison between Traditional and Over the Counter Hearing Aids

2015-2016 Student: Shannon Switzer (Northwestern University)

Title: The Effect of Dynamic Pitch on Speech Intelligibility

2014-2015 Student: Katherine Kamilos (Northwestern University)

Title: The Relationship between Spectral Resolution and Dynamic Pitch Perception

Au.D. Capstone project committee member

2018-2019 Student: Sara Burge (University of Washington)

Title: Relationship Between Cognition and Speech in Noise Performance in Adults with Sensorineural Hearing Loss

Student Mentor

Diamond Research Scholarship Advisor (Student: Mollee Feeney, Temple University, 2022)

Undergraduate student independent project advisor, Temple University

Student: Mollee Feeney (Fall 2022), Caitlyn DeCecco (Fall 2022) Gabriella Chichilitti (Fall 2023)

Graduate student independent research project mentor (Student: Madalyn Keeslar, Western Michigan University, Fall 2019)

Undergraduate student supervised research mentor (Student: Ayaka Yoshida, Northwestern University, Spring 2014)

Guest Speaker for Audiology Student Grand Round (Northwestern University, 2013)

Invited Speaker in Undergraduate Research Career Planning Seminar (University of California, 2008, 2009)

Graduate Student Mentor for Undergraduate Attendees (American Psychological Association, Summer Science Institute, University of California, 2007)

Service Contributions

Professional Services

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Reviewer for Grant Review and Reviewer Training (GRRT), American Speech-Language-Hearing Association

Ad Hoc reviewer for research grant, Innovation and Technology Commission, Hong Kong

Reviewer for Students Preparing for Academic-Research Careers (SPARC) Award program, American Speech-Language-Hearing Association

Contributor to Article “Cognitive Screening: The Benefits for Private Audiology Practices” (The Hearing Journal, March 2021)

Reviewer for Action on Hearing Loss PhD training grant

Reviewer for Audiology/Hearing Science Research Travel Award, American Speech-Language-Hearing Association

Ad Hoc reviewer for the National Science Foundation

Reviewer for the following journals:

Journal of the Acoustical Society of America (October 2014, November 2014, December 2014, July 2015, October 2016, July 2017)

Ear and Hearing (September 2013, March 2016, March 2018, December 2018)

Journal of Speech Language and Hearing Research (December 2019, January 2020, March 2020, March 2022)

Journal of the American Academy of Audiology (March 2015, May 2017)

Frontiers in Psychology (November 2016)

American Journal of Audiology (March 2017, December 2022)

International Journal of Audiology (April 2019, June 2019)

Aging and Health Research (February 2022)

University Services

Saffran Conference Advisory Committee (Temple University, 2022-ongoing)

Faculty Learning Community, Member (Temple University, 2022-2023)

Departmental Committee for Teaching Evaluation (Temple University, 2020)

Grand Round Panel member, Inter-professional Education Expo, College of Health and Human Services (Western Michigan University, April 2019)

Medallion Scholarship Competition Judge (Western Michigan University, November 2018)

Coordinating Committee for Professional Development, Member (Dept. of Speech Language, and Hearing Sciences, Western Michigan University, 2018-2019)

Grade & Program Dismissal Appeals Committee, Member (Western Michigan University, 2019)

Graduate Student Association Representative (University of California, 2008-2009)

Community Services

Invited speaker at Friendship Village (“Communication and Hearing Enhancement”, October 2019)

Instructor of lecture series for Osher Lifelong Learning Institute, Kalamazoo MI (“My Ear Can Do That? An Introduction to Hearing, Balance, and Related Work at Western Michigan

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University”, September 2019)

Invited speaker for Osher Lifelong Learning Institute, Evanston IL (“Now Hear This, OLLI: Make Classroom Communication Easier”, March 2017)

Professional Memberships

Acoustical Society of America

American Auditory Society

American Speech-Language-Hearing Association