

Jared A. Carter
Curriculum Vitæ

Biographical Data

Birthdate: 4 March 1993

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Address:

Education

Ph.D.	University of Memphis	August 2022	Communication Sciences & Disorders Concentration: Neuroscience
Graduate Certificate	University of Memphis	May 2022	Cognitive Science
M.S.	University of Arizona	December 2018	Speech, Language, & Hearing Science
B.A. Cum Laude	Utah State University	May 2016	Communicative Disorders & Deaf Education Minors: American Sign Language; Psychology

Academic Appointments

August 2023 – Present	Assistant Professor Dept. of Hearing, Speech & Language Sciences School of Human Services and Sciences Gallaudet University
October 2022 - August 2023	Research Associate/Fellow Hearing Sciences - Scottish Section Division of Clinical Neuroscience School of Medicine The University of Nottingham
May 2019 – August 2022	Graduate Research Assistant School of Communication Sciences and Disorders The University of Memphis

Publications

1. Bidelman G. M. & **Carter J. A.** (2023) Continuous dynamics in behavior reveal interactions between perceptual warping in categorization and speech-in-noise perception. *Front. Neurosci.* 17:1032369. doi: 10.3389/fnins.2023.1032369
2. **Carter, J. A.** & Bidelman, G. M. (2023). Perceptual warping exposes categorical representations for speech in human brainstem responses. *NeuroImage*, 269 (119899), 1-14.
3. **Carter, J. A.**, Buder, E. H., & Bidelman, G. M. (2022). Nonlinear dynamics in auditory cortical activity reveal the neural basis of perceptual warping in speech categorization. *JASA Express Letters*, 2(4), 045201. [invited paper]
4. **Carter, J. A.** & Bidelman, G. M. (2021). Auditory cortex is susceptible to lexical influence as revealed by informational vs. energetic masking of speech categorization. *Brain Research*, 1759, 147385. [special issue on "The Brain at the Cocktail Party"]

Conference Abstracts (*presenter)

1. Bidelman, G. M. & **Carter, J. A.** (2023). Perceptual Warping Exposes Categorical Representations For Speech In Human Brainstem Responses. Presented at the 45th Annual Midwinter Meeting of the Association for Research in Otolaryngology [Podium Presentation], Orlando, FL, February 11-15, 2023.
2. ***Carter, J. A.**, Buder, E. H., & Bidelman, G. M. (2022). Nonlinear dynamics in auditory cortical activity reveal the neural basis of perceptual warping in speech categorization. Poster presented at the 45th Annual Midwinter Meeting of the Association for Research in Otolaryngology [Poster Presentation], Online, February 5-9, 2022.
3. ***Carter, J.** & Bidelman, G.M. (2021). Auditory Cortex is Susceptible to Lexical Influence as Revealed by Informational Vs. Energetic Masking of Speech Categorization. Poster presented at the 44th Annual Midwinter Meeting of the Association for Research in Otolaryngology [Poster Presentation], Online, February 20-25, 2021.
4. ***Carter, J.** & Cone, B.K. (2020). Informational and Energetic Masking Effects on the Acoustic Change Complex. Poster presented at the 43rd Annual Midwinter Meeting of the Association for Research in Otolaryngology [Poster Presentation], San Jose, CA, January 24-29, 2020.
5. ***Carter, J.** & Bidelman, G.M. (2020). Effects of Linguistic and Non-Linguistic Interference on Speech Categorization and Neural Encoding. Poster presented at the 43rd Annual Midwinter Meeting of the Association for Research in Otolaryngology [Poster

Presentation], San Jose, CA, January 24-29, 2020.

Preprints

1. **Carter, J. A.** & Bidelman, G. M. (2022). Perceptual warping exposes categorical representations for speech in human brainstem responses. bioRxiv [preprint]. <https://doi.org/10.1101/2022.07.13.499914>
2. Bidelman, G. M. & **Carter, J. A.** (2021). Continuous dynamics in behavior reveal perceptual nonlinearities aid speech categorization in noise. PsyArXiv [preprint]. <https://doi.org/10.31234/osf.io/qd3nu>
3. **Carter, J. A.**, Buder, E. H, & Bidelman, G. M. (2021). Nonlinear dynamics in auditory cortical activity reveal the neural basis of perceptual warping in speech categorization. bioRxiv [preprint]. doi: <https://doi.org/10.1101/2021.12.07.470603>
4. **Carter, J. A.** & Bidelman, G. M. (2020). Auditory cortex is susceptible to lexical influence as revealed by informational vs. energetic masking of speech categorization. bioRxiv [preprint]. doi: <https://doi.org/10.1101/2020.10.20.347724>

Awards

1. Graduate Student Association Celebrate Student Success Award, May 2022.
2. Institute for Intelligent Systems Student Organization Travel Award, January 2020, \$850.

Theses

Carter, J. A. (2022). Effects of Nonlinear Dynamics of Speech Categorization on Cortical and Brainstem Responses (Doctoral Dissertation, University of Memphis).

Carter, J. (2018). Informational and Energetic Masking Effects on Speech-Evoked Cortical Auditory Potentials (Master's Thesis, University of Arizona).

Teaching Experience

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| Fall 2020 | Teaching Assistant – AUSP 8118 Electrophysiologic Assessment of the Auditory System
University of Memphis |
| Fall 2019 | Guest Lecture – AUSP 8010 Neural Bases of Communication |

University of Memphis

Professional Memberships

December 2021 – Present	Association for Research in Otolaryngology
September 2014 – December 2018	National Student Speech, Language, and Hearing Association

University Service

September 2021 – February 2022	American Sign Language Program Coordinator Faculty Search Committee Member (University of Memphis)
May – June 2021	American Sign Language Instructor Faculty Search Committee Member (University of Memphis)

Related Employment

August 2016 – May 2018	Clinic Assistant at The University of Arizona Speech, Language, and Hearing Clinics. Organized the records of over a thousand individuals; prepared necessary paperwork for patients; created informational sheets related to Speech, Language, and Hearing Sciences, and associated careers.
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Community Service

February 2023 - Present	Sunday School President at non-profit religious organization. Taught monthly classes to a group of ~40 persons.
January 2022 – August 2022	Sunday School President at non-profit religious organization. Taught bi-monthly classes to a group of ~40 persons.
August 2019 – August 2022	On-call American Sign Language volunteer at non-profit religious organization.
January 2019 – January 2022	Executive Secretary at non-profit religious organization. Scheduled appointments, took minutes at meetings, discussed needs of local

	congregation, and assisted in leading an organization of approximately 80 persons.
May 2019 – August 2019	Shift coordinator at non-profit religious organization. Organized a shift of approximately twelve individuals to fulfill necessary tasks for operation of the Temple twice a month.
July 2018 – December 2018	Executive Secretary at a non-profit religious organization. Scheduled appointments, took minutes at meetings, discussed needs of the local congregation, and assisted in leading an organization of approximately 200 persons.
August 2017 – October 2018	Volunteer at a non-profit religious organization. Performed needed tasks for the daily operation of the Temple one day a week for four hours in both English and American Sign Language.
February 2018 – August 2018	Supervisor at non-profit religious organization. Conducted face-to-face interviews with people to see how the people they visited and kept in contact with were doing and kept a record of these interviews.
September 2017 – July 2018	Clerk at non-profit religious organization. Managed records of approximately 300 individuals; filed quarterly reports; participated in weekly meetings to improve the organization's effectiveness in assisting members.
January 2017 – September 2017	Activity Committee Member for non-profit religious organization. Organized, planned, and executed activities for an organization of approximately 300 individuals, including activities, food preparation, and shopping for the supplies two to three times per month.

August 2016 – December 2016	Alumni Outreach Coordinator on the National Student Speech, Language, and Hearing Association Utah State University Chapter Council. Worked with alumni of the bachelor's degree to create bonds between different universities to collaborate on goals benefiting the institutions.
May 2015 – May 2016	Audiology Representative on the National Student Speech, Language, and Hearing Association - Utah State University Chapter Council. Worked with local audiologists to set up observations for undergraduates and set up clinic tours with the University Clinics.
January 2016 – May 2016	Organist for non-profit religious organization. Practiced and played the organ for religious services each week.
September 2015 – May 2016	Committee Member for non-profit Religious Student Association Technology Council. Assisted in preparing, running, and cleaning up technology (sound system, film system, and lighting system) on at least a weekly basis for an organization of more than 7000 individuals.
September 2015 – May 2016	Clerk for a non-profit religious organization. Managed records of approximately 200 individuals; filed quarterly reports; participated in weekly meetings to improve the organization's effectiveness in assisting members.
May 2015 – August 2015	Organist for non-profit religious organization. Practiced and played the organ for religious services each week.
August 2014 – May 2015	President in a non-profit religious organization. Managed attendance records of four separate concurrently running meetings each week. Trained teachers in methods and practices for teaching. Conducted a meeting with assistants, training them, and delegating tasks.

January 2014 – May 2014	Volunteer at a non-profit religious organization. Performed needed tasks for the daily operation of the Temple one day a week for four hours.
June 2012 – September 2013	Missionary for a non-profit religious organization. Collaborated on planning, preparing, and presenting lessons to assist individuals from diverse backgrounds achieve their goals. Assisted training new missionaries on improving teaching skills.
August 2011 – May 2012	Clerk for a non-profit religious organization. Managed records of approximately 200 individuals; filed quarterly reports; managed finances of the organization; participated in weekly meetings to improve the organization's effectiveness in assisting members.

Clinical Experience in Audiology

Total Hours	355 hours (177.5 hours treatment, 80.5 hours assessment including screenings, 18 hours group aural rehabilitation, and 79 hours administration)
University of Arizona Hearing Clinic Fall 2017	146 hours (56 hours treatment, 27 hours assessment including screening, 18 hours group aural rehabilitation, 45 hours administration)
Pascua Yaqui Head-Start Preschool Summer 2017	6.5 hours (6.5 hours screening)
University of Arizona Hearing Clinic Summer 2017	99 hours (62.5 hours treatment, 14.5 hours assessment including screening, 22 hours administration)
University of Arizona Hearing Clinic Spring 2017	54 hours (25 hours treatment, 17 hours assessment, 12 hours administration)
University of Arizona Hearing Clinic	45.5 total hours (34 hours treatment, 11.5 hours assessment)

Fall 2016

Ocotillo Preschool
Fall 2016

4 total hours (4 hours hearing screenings)

Disorders seen:

Presbycusis, Temporal Lobe Stroke, Inorganic Hearing Loss, Limited Dynamic Range, Pediatric Hearing Loss, Unilateral Hearing Loss, Noise Induced Hearing Loss, Otosclerosis, Cerumen Impaction, Foreign Bodies in Ear Canal, Sudden Idiopathic Sensorineural Hearing Loss, Deafness, Acoustic Neuroma

Additional Skills

Languages

American Sign Language
English

Computer Programs

Microsoft Office
Audacity
MATLAB
SAS 9.4
Brain Electrical Source Analysis (BESA) 7.1
Brain Electrical Source Analysis (BESA) Statistics 2.1
GSEQ 5.1
Praat

Audiometric Equipment

Astera/GSI-61 Audiometers
GSI Tympstar
Interacoustics Titan
Intelligent Hearing Systems SmartEP
GSI Audera
Compumedics Neuroscan

Musical Skills

Piano
Organ