G. LYNN KURTEFF, PHD, MS-SLP

kurteff [at] utexas [dot] edu

[ORCiD] 🧠 [website]

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CURRENT POSITION

Postdoctoral researcher in the department of Cognitive Sciences, UC Irvine

RESEARCH INTERESTS

· Neurobiology of speech perception & production
· Speech motor control and auditory feedback processing
· Reorganization of language after stroke & surgical intervention
· Brain-to-text decoding, brain-computer interfaces

CLINICAL INTERESTS

· Neurogenic communication disorders: aphasia & apraxia of speech
· Head & neck cancer, dysphagia
· Gender-affirming voice therapy

EDUCATION

PhD in Speech, Language & Hearing Sciences   2018 - 2024
University of Texas at Austin   *Austin, TX*

· Mentor: Liberty Hamilton
· Other committee members: Jun Wang, Rosemary Lester-Smith, Maya Henry, Stephanie Riès
· Dissertation: *Cortical Suppression of Auditory Feedback during Speech Production and Perception*

M.S. in Speech, Language & Hearing Sciences   2018 - 2020
University of Texas at Austin   *Austin, TX*

· Mentors: Liberty Hamilton, Rosemary Lester-Smith
· Thesis: *Modulation of Neural Responses to Naturalistic Speech Production and Perception*

B.A. in Linguistics and Psychology   2012 - 2015
University of California, Berkeley   *Berkeley, CA*

· Mentors: Keith Johnson, Lev Michael, Joseph Campos

HONORS AND AWARDS

- UT Austin CARE Research Day, Best Poster award, Spring 2024, $50
- Texas Speech-Language-Hearing Foundation, International travel grant, Spring 2024, $1,700
- William Orr Dingwall Foundation Dissertation Fellowship in the Cognitive, Clinical, and Neural Foundations of Language recipient, Fall 2023 - Spring 2024, $40,000
- UT Austin Graduate School Fellowship recipient, Summer 2023 (declined), $10,672
- Texas Speech-Language-Hearing Foundation, President's Research Endowment Fund recipient, Spring 2023, $1,375
- Cold Spring Harbor Laboratory Regeneron Scholarship recipient, Genetics & Neurobiology of Language course, Summer 2022, $1,750
- TSHA 2022 Audiology Research Symposium award winner, Winter 2022, $250
- TSHA 2021 Audiology Research Symposium award winner, Spring 2021, $250
- UT Austin Moody Doctoral Fellowship recipient, Fall 2019 - Spring 2022, $5,000
- UT Austin Provost Fellowship recipient, Fall 2018 & Summer 2019, $5,000
- UC Berkeley Dean's Honors, Spring 2015 & Fall 2015

PEER-REVIEWED JOURNAL ARTICLES

1. **Kurteff, G.L.**, Lester-Smith, R.A., Martinez, A., Currens, N., Holder, J., Villarreal, C., Mercado, V.R., Truong, C., Huber, C., Pokharel, P., & Hamilton, L.S. (2023). *Speaker-induced suppression in EEG during a naturalistic reading and listening task.* Journal of Cognitive Neuroscience. doi:10.1162/jocn_a_02037

2. Levy, D.F., Silva, A.B., Scott, T., Liu, J., Harper, S., Zhao, L., Hullett, P., **Kurteff, G.**, Andrews, J., Wilson, S.M., Leonard, M., & Chang, E.F. (2023). *Apraxia of speech with phonological alexia and agraphia following resection of the left middle precentral gyrus.* Journal of Neurosurgery: Case Lessons. doi:10.3171/case22504

3. Ammanuel, S., Almeida, N.C., **Kurteff, G.**, Kakaizada, S., Molinaro, A., Berger, M.S., Chang, E.F., & Hervey-Jumper, S.L. (2021). *Natural language assessment correlates with health-related quality of life in adult glioma patients.* Journal of Neuro-Oncology. doi:10.1093/neuonc/noaa215.575

4. Chang, E.F., **Kurteff, G.**, Andrews, J., Briggs, R.G., Conner, A.K., Battiste, J.D., & Sughrue, M.E. (2020). *Pure apraxia of speech after focal surgical resection of area 55b in dorsal premotor cortex.* Neurosurgery. doi:10.1093/neuros/nyaa002

5. De Witte, E., Piai, V., **Kurteff, G.**, Cai, R., Mariën, P., Dronkers, N., Chang, E.F., & Berger, M.S. (2018). *A valid alternative for in-person language assessments in brain tumor patients: Feasibility and validiy measures of the new TeleLanguage test.* Neuro-Oncology Practice. doi:10.193/nop/npy020

6. Chang, E.F., **Kurteff, G.**, & Wilson, S.M. (2018). *Selective interference with syntactic encoding during sentence production by direct electrocortical stimulation of the inferior frontal gyrus.* Journal of Cognitive Neuroscience. doi:10.1162/jocn_a_01215

JOURNAL ARTICLES SUBMITTED/IN PREPARATION/IN REVISION

1. **Kurteff, G.L.**, Field, A.M., Asghar, S., Tyler-Kabara, E.C., Clarke, D., Weiner, H.L., Anderson, A.E., Watrous, A., Buchanan, R.J., Modur, P.N., & Hamilton, L.S. (2024). *Processing of Auditory Feedback in Perisylvian and Insular Cortex.* In revision; preprint available on bioRxiv: doi:10.1101/2024.05.14.593257

2. Zhao, L., Silva, A.B., **Kurteff, G.L.**, & Chang, E.F. (2023). *Inhibitory control of speech production in the human premotor frontal cortex.* In revision; preprint available on bioRxiv: doi:10.1101/2023.03.01.530698

CONFERENCE PRESENTATIONS

1. **Kurteff, G.L.**, Tyler-Kabara, E.C., Clarke, D., Weiner, H.L., Anderson, A.E., Watrous, A., Asghar, S., Field, A., & Hamilton, L.S. (2024). *Intracranial EEG Processing of Auditory Feedback in Perisylvian Cortex.* Poster session presented at the Annual Meeting of the Cognitive Neuroscience Society, Toronto, ON, Canada.

2. Hamilton, L.S., Asghar, S., Desai, M,, **Kurteff, G.L.**, Field, A., Nussbaum, N.L., Clarke, D., Tyler-Kabara, E.C., Anderson, A., & Weiner, H.L. (2023). *Utilizing Clinical Intracranial Epilepsy Monitoring Infrastructure for Basic Science Research of Speech and Language Development.* Poster session presented at the Annual Meeting of the Child Neurology Society, Vancouver, BC, Canada.

3. **Kurteff, G.**, & Hamilton, L.S. (2022). *Stereo EEG mapping of sensorimotor responses to self-generated speech.* Poster session presented at the Annual Meeting of the Texas Speech-Language Hearing Association, Fort Worth, TX; Association for Research in Otolaryngology, virtual meeting due to COVID-19.

4. Cheng, C., Young, N., Teplansky, K., **Kurteff, G.**, Salman, R., Mau, T., & Wang, J. (2022). *Fricative production in laryngeal, electrolaryngeal, and tracheoesophageal speech.* Poster session presented at the biannual meeting of the Conference on Motor Speech, Charleston, SC.

5. **Kurteff, G.**, & Hamilton, L.S. (2021). *Encoding of phonological features in intracranial recordings of human speech cortex during a dual perception-production task.* Poster session presented at the Annual Meeting of Advances and Perspectives in Auditory Neuroscience, virtual meeting due to COVID-19.

6. **Kurteff, G.**, Martinez, A., Currens, N., Holder, J., Mercado, V., Truong, C., Huber, C., Pokharel, P., & Hamilton, L.S. (2020a; 2021b). *Methods for Investigating Continuous Speech Production and Perception with EEG.* Poster session presented at a. the Annual Meeting of the Society for Neurobiology of Language; b. Texas Speech-Language Hearing Association, virtual meetings due to COVID-19.

7. **Kurteff, G.**, Fox, N.P., Dronkers, N.F., Desai, M., Shafi, A., & Chang, E.F. (2019). *Behavioral and neuroanatomical description of stimulation-induced speech arrest.* Poster session presented at the Annual Meeting of the Cognitve Neuroscience Society, San Francisco, CA, USA.

8. Chang, E.F., **Kurteff, G.**, & Wilson, S.M. (2017). *Selective interference with syntactic encoding during sentence production by direct electrocortical stimulation of the inferior frontal gyrus.* Poster session presented at the Annual Meeting of the Society for the Neurobiology of Language, Baltimore, MD, USA.

9. De Witte, E., Piai, V., **Kurteff, G.**, Cai, R., Berger, M.S., Chang, E.F., & Dronkers, N. (2016). *Usability and validity of a phone battery to assess language functions in brain tumor patients undergoing awake surgery.* Poster session presented at the Annual Meeting of the Academy of Aphasia, Llandudno, Wales; UK and Society of Neurooncology, Scottsdale, AZ, USA.

THESES AND DISSERTATIONS

1. **Kurteff, G.L.** (submitted). *Cortical Suppression of Auditory Feedback during Speech Production and Perception.* PhD dissertation.

2. **Kurteff, G.** (2020). *Modulation of neural responses to naturalistic speech production and perception.* Masters thesis. doi:10.26153/tsw/14461

RESEARCH EXPERIENCE

UC Irvine Department of Cognitive Sciences   2024 - Present
Auditory & Language Neuroscience Lab - Postdoctoral Scholar   *Irvine, CA*

· Principal Investigator: Greg Hickok
· Postdoctoral fellowship funded through the Center for the Study of Aphasia Recovery (C-STAR) project, focused on investigating patterns of dorsal stream impairment in people with apraxia of speech

UT Austin Department of Speech, Language, and Hearing Sciences   2024
Hamilton Lab - Postdoctoral Scholar   *Austin, TX*

· Principal Investigator: Liberty Hamilton
· Brief post-grad postdoc focused on the role of posterior insula in auditory processing

UT Austin Department of Speech, Language, and Hearing Sciences   2018 - 2024
Hamilton Lab - Graduate Research Assistant   *Austin, TX*

· Principal Investigator: Liberty Hamilton; rotation with Jun Wang Fall 2021
· Researching processing of auditory feedback during speech production with invasive and noninvasive electrophysiology (ECoG, sEEG, EEG, EMG)
· Rotation with Jun Wang focused on decoding of linguistic features from EEG

UCSF Department of Neurological Surgery   2016 - 2018
Chang Lab - Research Specialist   *San Francisco, CA*

· Principal Investigator: Edward F. Chang
· Performed research on recovery from aphasia in postoperative neurosurgical patients and intraoperative cortical stimulation mapping
· Maintained active collaborations on multiple projects after leaving lab

UC Berkeley Department of Linguistics   2015
Undergraduate Researcher   *Berkeley, CA*

· Principal Investigators: Keith Johnson & Sarah Bakst
· Transcribed/aligned phonetic information in Praat and scripted ultrasound image extraction for Sarah Bakst's dissertation research

UC Berkeley Department of Linguistics   2015
Undergraduate Researcher   *Berkeley, CA*

· Principal Investigator: Dr. Lev Michael
· Used FLEx to create and maintain a corpus of the morphology of Matsigenka, an Arawakan language

UC Berkeley Department of Psychology   2014 - 2015
Research Assistant & Morning Supervisor   *Berkeley, CA*

· Principal Investigator: Dr. Allison Harvey
· Recruited participants and administered cognitive-behavioral tasks to assess early-morning wakefulness in teenagers with sleep disorders
· Trained other RAs to collect data and oversaw morning experiments

TEACHING EXPERIENCE

UT Austin 2019 - 2023
Guest Lecturer *Austin, TX*

· Guest lecturer for departments of Speech, Language and Hearing Sciences, Linguistics, and Natural Sciences
· Lecture titles: "Introduction to EEG," "Broca and Wernicke are Dead," "Cortical Stimulation Mapping"

UT Austin 2021
Assistant Instructor *Austin, TX*

· Served as the primary instructor for undergraduate course "Language and the Brain"
· Designed all course materials and led lectures for class of ∼70 students and supervised two TAs

UT Austin 2019 - 2020
Teaching Assistant *Austin, TX*

· TA for "Language and the Brain," taught by Dr. Liberty Hamilton in Fall 2019 and Fall 2020 semesters

UC Berkeley "DeCal" Program 2013 - 2015
Student Instructor *Berkeley, CA*

· With three other student instructors, instructed a two unit course at UC Berkeley, "Intro to 3D Modeling" for three semesters

MENTORSHIP

· Giselle Pedraza, undergraduate, UT Austin (2024)
· Tasha Anslyn, undergraduate, UT Austin (2020 - 2021)
· Valerie Rae Mercado, undergraduate, UT Austin (2019 - 2021)
· Christopher Truong, undergraduate, UT Austin (2019 - 2021)
· Claire Huber, undergraduate, UT Austin (2019 - 2021)
· Nicole Currens, undergraduate, UT Austin (2019 - 2021)
· Amanda Martinez, undergraduate, UT Austin (2019 - 2021)
· Jade Holder, undergraduate, UT Austin (2019 - 2020)
· Cassandra Villarreal, undergraduate, UT Austin (2019 - 2020)
· Paranjaya Pokharel, undergraduate, UT Austin (2019)

CLINICAL EXPERIENCE

Ascension Seton 2021
Speech-Language Pathology Externship *Austin, TX*

· Supervisor: Elizabeth Otterbein, MS, CCC-SLP
· Treated adult clients in a mixture of inpatient and outpatient hospital settings
· Inpatient treatment focused on bedside swallow examinations, modified barium swallow studies, and dysphagia treatment
· Outpatient treatment focused on management of tracheoesophageal voice prostheses in people with total laryngectomees, voice and lymphedema therapy for survivors of head and neck cancer, modified barium swallow studies, cognitive-linguistic therapy, and gender-affirming voice therapy

All Care Therapies   2020
Speech-Language Pathology Externship   *Georgetown, TX*

· Supervisors: Holly Mouton, MS, CCC-SLP; Lynzy Melzer, MA, CCC-SLP
· Treated pediatric and adult clients in a private practice setting
· Treatment focused on early language, articulation and phonological disorders, and autism spectrum disorders

Round Rock ISD   2020
Speech-Language Pathology Externship   *Round Rock, TX*

· Supervisors: Vanessa Baca, MA, CCC-SLP; Jeanette Fields, MA, CCC-SLP
· Delivered speech-language pathology services to special education students at Stony Point High School with autism spectrum disorders, cognitive deficits, and developmental disorders
· Services focused on social communication, receptive and expressive language through AAC, fluency, articulation, and joint attention

UT Austin   2019
Graduate Student Clinician   *Austin, TX*

· Rotation with Nickole Hines-Staples, MA, CCC-SLP, BIES: Evaluation and treatment of children with expressive language, phonological, and articulation disorders at the UT Speech and Hearing Clinic (UTSHC)
· Rotation with Jessica H. Franco, PhD, CCC-SLP, BCBA-D: Treated adults with Autism Spectrum Disorder and Down syndrome in a group setting as part of UTSHC's "Convo Club;" evaluated children with phonological disorders
· Rotation with Kristy Armer, M.S., CCC-SLP: Evaluation and treatment of varying adult populations, including Autism Spectrum Disorder and aphasia

UCSF Department of Neurological Surgery   2016 - 2018
Assistant Specialist   *San Francisco, CA*

· Performed aphasia evaluations using WAB, BNT, and QAB (Quick Aphasia Battery) in presurgical and postsurgical patients
· Worked with team of neurologists and neurosurgeons to intraoperatively map language in the brain using nonstandardized language assessments and electrocortical stimulation
· Collected data to help develop new aphasia assessments (QAB, TeleLanguage)

ACADEMIC AND COMMUNITY SERVICE

Out in Science, Technology, Engineering, and Mathematics (oSTEM)   2022 - 2024
Member   *Austin, TX*

· Member of an on-campus chapter of an organization for LGBT+ students in STEM
· Discussed my experience as a trans PhD student with undergraduates/recent graduate members considering graduate school

Neuroscience Undergraduate Reading Program (NURP)   2020
Mentor   *Austin, TX*

· Mentored student who conducted original research on an EEG dataset through student organization in the Department of Neuroscience
· Project title: "Do speech errors affect EEG activity in naturalistic perception and production?"

brainWaves Podcast   2019 - 2020
Co-Host   *Austin, TX*

· Co-host of "brainWaves" podcast with Maansi Desai, fellow graduate student at UT
· Podcast topics included auditory neuroscience, communication disorders, and how to effectively communicate science to the general public as a researcher
· Prominent researchers from the fields of auditory neuroscience and communication sciences and disorders are invited as guests onto the podcast to communicate their research in a fashion suitable for the general public

Society for Linguistics Undergraduate Students (SLUgS)   2014 - 2015
Member & President   *Berkeley, CA*

· Revitalized dormant organization for linguistics undergraduates at UC Berkeley
· Coordinated talks for the club from various guest speakers across the disciplines of linguistics (John Ohala, David J. Peterson, John Quijada)
· Served as club president from May 2015 to December 2015; returned as an invited speaker/alumnus to discuss my research in the Chang Lab in April 2017

3D Modeling Club (3DMC)   2013 - 2015
Founding Member   *Berkeley, CA*

· Created UC Berkeley's first 3D modeling and printing club with other students
· Expanded club by hosting weekly meetings and teaching a student-taught course through the university's "DeCal" program
· Secured funding for club-owned 3D printing equipment and a dedicated "makerspace" on campus
· Networked with professional organizations in the 3D printing industry such as Autodesk

AD HOC REVIEW

· *Brain, Neurobiology of Language*

RESEARCH SKILLS

· Data collection: EEG, ECoG/sEEG, MRI/fMRI, EMG, cortical stimulation, clinical speech and language assessment
· Analysis techniques: Event-related potentials, neural time series extraction, encoding/decoding models, temporal receptive field modeling, mixed-effects modeling, voxel-based lesion symptom mapping, stereotactic electrode localization, corpus analysis, nonnegative matrix factorization, phonetic transcription and forced alignment
· Programming languages: Python, MATLAB, R, Swift (Apple fork of Objective-C)
· Miscellaneous software: Praat, FreeSurfer, MRIcron, FLEx, XCode, ffmpeg/Audacity, Adobe Creative Cloud (Illustrator, Photoshop, Premiere), LaTeX