

Education

Harvard University PhD Candidate in Speech and Hearing Biosciences and Technology	Expected 06.2026
University of California, Berkeley B.A. in Cognitive Science	05.2018

Research Groups

Meta Reality Labs Research Scientist Intern, Machine Learning	09.2025 – Present
Laboratory for Computational Audition, MIT PhD Candidate. Advised by <i>Josh McDermott</i>	09.2020 – Present
Hamilton Lab, UT Austin Research Assistant. Advised by <i>Liberty Hamilton</i>	01.2019 – 12.2020
Chandrasekaran Lab, UT Austin Research Assistant.	06.2018 – 12.2018
Knight Lab, UC Berkeley Undergraduate Research Assistant. Advised by <i>Robert T. Knight</i>	09.2017 – 06.2018
Redwood Center for Theoretical Neuroscience, UC Berkeley Undergraduate Research Assistant. Advised by <i>Fritz Sommer</i>	05.2017 – 06.2018

Fellowships, Awards, and Scholarships

Friends of McGovern Institute Graduate Student Fellow	2024
Travel Award (Association for Research in Otolaryngology, Anaheim CA)	2024
Student Recognition of Teaching (Harvard Graduate School of Arts and Sciences)	2023
Amelia Peabody Scholarship	2022
UC Berkeley Transfer Scholarship	2017

Invited Talks

Meta Reality Labs	11.2025
Laboratory for Computational Vision, Flatiron Institute Center for Computational Neuroscience	07.2025
Association for Research in Otolaryngology	02.2025
Kanwisher Lab, MIT	12.2024

Journal Publications

Griffith IM, Hess RP, McDermott JH (*in press*). Optimized feature gains explain and predict successes and failures of human selective listening. *Nature Human Behavior*. <https://doi.org/10.1101/2025.05.28.656682>

Conference Proceedings

Griffith IM, Hess RP, McDermott JH (2024). Human-like feature attention emerges in task-optimized models of the cocktail party problem. *Conference on Cognitive Computational Neuroscience*.

Conference Abstracts

Griffith IM, McDermott JH (October, 2024) Human-like feature attention emerges in task-optimized models of the cocktail party problem. *Advances and Perspectives in Auditory Neuroscience*. Chicago, IL.

Griffith IM, Hess RP, McDermott JH (February, 2024). Modeling Auditory Attention with Machine Learning. *Association for Research in Otolaryngology*. Anaheim, CA.

Griffith IM, McDermott JH (November, 2023). Human-like Attentional Selection Emerges as a Solution to the Cocktail Party Problem. *Advances and Perspectives in Auditory Neuroscience*. Washington, D.C.

Griffith IM, McDermott JH (February, 2023). Human-like Attentional Selection Emerges as a Solution to the Cocktail Party Problem. *Association for Research in Otolaryngology*. Orlando, FL.

Griffith IM*, McPherson MJ*, Saddler M*, McDermott JH (February, 2023). Task-optimized models of relative pitch. *Association for Research in Otolaryngology*. Orlando, FL.

Griffith IM (October, 2022). Human-like Attentional Selection Emerges as a Solution to the Cocktail Party Problem. *Harvard Program in Speech and Hearing Bioscience and Technology End of Summer Talks*. Falmouth, MA. **(Talk)**

Griffith IM (September, 2021). Towards human-like models of speech recognition. *Harvard Program in Speech and Hearing Bioscience and Technology End of Summer Talks*. Boston, MA. **(Talk)**

Desai M, **Griffith IM**, Holder J, Villarreal C, Clark N, Hamilton LS. (March, 2020). Separating brain responses to speech from noise in naturalistic listening environments. *Moody Graduate Research and Creative Symposium*. Austin, TX.

Griffith IM, LeBel A, Jain S, Huth AG, Hamilton LS (September, 2019) Phonological and pitch classification with a branched convolutional neural network. *Society for Neuroscience*. Chicago, IL.

Griffith IM, LeBel A, Jain S, Huth AG, Hamilton LS (September, 2019). Phonological feature and pitch classification with a branched convolutional neural network. *Advances and Perspectives in Auditory Neuroscience*. Chicago, IL.

Griffith IM, Hamilton LS (April, 2019). Phonological and pitch classification with branched convolutional neural network. *Clinically Applied Rehabilitation Research and Engineering*. Austin, TX.

Teaching Fellowships

Harvard College Program in General Education

TF: Engineering the Acoustical World (GENED 1080) 2023

TF: Engineering the Acoustical World (GENED 1080) 2022

Harvard Medical School Division of Medical Sciences

TF: Audition: Neural Mechanisms, Perception and Cognition (SHBT 205) 2023

Leadership and Service

MIT Undergraduate Research Opportunities Program, Mentor 2023 – Present

MIT Center for Brains Minds + Machines, Summer research Mentor 2022

MIT OpenMind Computing Cluster, Group Representative 2022 – Present

Journal Reviewer (Ad Hoc) 2022 – Present

Nature Communications

Graduate Coursework

Machine Learning (MIT 6.7900)

Spoken Language Processing (MIT 6.345)

Intro Sound, Speech, Hearing (Harvard SHBT 200)
Biology of the Inner Ear (Harvard SHBT 201)
Clinical Aspects of Speech and Hearing (Harvard SHBT 202)
Anatomy of Speech and Hearing (Harvard SHBT 203)
Audition: Neural Mechanisms, Perception and Cognition (Harvard SHBT 205)

Skills

Machine Learning: Tensorflow, PyTorch

Software & Programming: Python (numpy, pandas, sklearn), JavaScript, MATLAB

Data Visualization: Seaborn, Matplotlib, Adobe Illustrator

Psychophysics platforms: Amazon Mechanical Turk, Prolific

Misc: Signal Processing, Parallel Computing, Singularity/Docker, Jupyter