# Latané Bullock

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## **EDUCATION**

#### HARVARD UNIVERSITY

PH.D. CANDIDATE, SPEECH AND HEARING BIOSCIENCE AND TECHNOLOGY May 2027 | Boston, MA GPA: 4.0

#### **RICE UNIVERSITY**

B.S. ELEC & COMPUTER ENG B.A. LINGUISTICS EXCHANGE AT NATIONAL UNIV OF SINGAPORE May 2020 | Houston, TX GPA: 3.87

## COURSEWORK

Neural Signal Processing
Signals, Systems, and Machine Learning
Multilingualism
Random Processes and Applications
Neural Computation
Statistics for Neuroscience
Speech Acoustics and Perception
Sociolinguistics
Phonetics and Phonology
Analysis of Sounds Systems

# SKILLS

#### **PROGRAMMING**

Proficient:
MATLAB • Python
Familiar:
C • R • LaTeX

#### **NATURAL LANGUAGES**

English - Native French - Proficient Spanish - Proficient Portuguese - Familiar

# LINKS

Personal:// latanebullock.info LinkedIn:// latanebullock Blog:// latane.blogs.rice.edu Github:// prlabu

## PUBLICATIONS AND PRESENTATIONS

- Manes J, Bullock L, Meier A, Turner RS, Guenther FG, Richardson RM. A neuro-computational view of the effects of Parkinson's Disease on speech planning and execution. Frontiers in Human Neuroscience, 2024.
- Bullock L, Forseth KJ, Woolnough O, Rollo PS, Tandon N. Functional activation
  of supplementary motor area in speech initiation: a large-scale intracranial
  EEG evaluation of stereotyped word articulation. Submitted, Cell Reports,
  May 2024.
- Bullock L, Toles LE, Hillman RE, Mehta DD. Acoustic-Aerodynamic Voice Outcome Ratios Identify Changes in Vocal Function Following Vocal Fold Medialization for Unilateral Vocal Fold Paralysis. Journal of Voice. 2023.
- Thomas TM, Singh A, Bullock L, Liang D, Morse CW, Scherschligt X, Seymour JP, Tandon N. Decoding articulatory and phonetic components of naturalistic continuous speech from the distributed language network. Journal of Neural Eng. 2023
- Bullock, L. Conspecific vocalizations in inhibitory neurons of mouse auditory cortex. Speech and Hearing Bioscience and Technology Fall Symposium 2022.
- Bullock L, Bush A, Guenther F, Richardson RM. Intracranial EEG subcortical local field potentials during full-phrase speech production. Boston Speech Motor Control Symposium. June 2023.

### RESEARCH AND PROJECTS

#### UT HEALTH MCGOVERN MEDICAL SCHOOL | RESEARCH

**ENGINEERING ASSISTANT - TANDON LAB** 

May 2020-May 2021 | Houston, Texas

- Analyze iEEG (both SDE and sEEG) recordings in speech motor and auditory regions during production of a stereotyped word in over 8000 trials and 50 patients
- Investigate high-gamma power state-space trajectories in ventral sensorimotor cortex to test the feasibility of implantable BCIs using penetrating stereotactic electrodes.

#### JHU HUMAN LANGUAGE TECHNOLOGIES WORKSHOP |

Undergraduate Researcher

Summer 2019 | Montreal, Canada

- Researched with 'Speaker Diarization in Adverse Scenarios' team during CLSP's Jelinek Summer Workshop for human language technologies.
- Explored, tested, and implemented techniques to account for overlappping speakers in speech processing pipeline.
- Managed team repository, writing Bash and Python scripts to integrate teammates' work into diarization system.

# AWARDS

F31 KIRSCHSTEIN PREDOCTORAL INDIVIDUAL NATIONAL RESEARCH SERVICE AWARD

National Institute of Health, 2024

T32 KIRSCHSTEIN INSTITUTIONAL NATIONAL RESEARCH SERVICE AWARD National Institute of Health, 2021

NETHERLANDS FULBRIGHT SEMIFINALIST Research in Cognitive Neuroscience, 2019

ELIZABETH D. WILLIAMS SCHOLAR - STUDY ABROAD

Rice University, 2019