COMMUNICATION SCIENCES AND DISORDERS
COLLEGE OF ALLIED HEALTH SCIENCES

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

FOR APPLICATION YEAR: 2022

PROJECT TITLE: <u>Technological and Educational Initiatives to Improve Voice Outcomes</u>

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Project Description

You will be joining the Voice & Swallow Mechanics Lab (please visit vsmechlab.com) on different projects aimed to improve access to technology and increase culturally-competent educational content related to voice science. Approximately 1 in 3 adults in the US have a voice problem at some point in their lives. Some go on to develop chronic voice problems that impact their social activities, work experiences, and quality of life. We have on-going projects dedicated to helping people who are suffering from voice disorders, as well as projects aimed to help improve education for future clinicians who will help people with speech and voice problems. Please see some brief examples of work you may help with below:
• Project 1: Helping to develop an app for monitoring voice problems. Our team has been working to develop a smartphone application that can be used to monitor voice acoustics in people with voice problems. Your role in this study would be to help facilitate focus group assessments and feedback from people using the app. You will also shadow at UC Health Voice Center to assist in collecting voice data from people with voice disorders. (This work is funded by the University research council faculty award from UC; IRB#2021-0724).
• Project 2: Developing culturally-responsive speech and voice science material for educational training. Your role in this project would be to assist in educational module development, including attending brainstorming meetings, completing literature reviews, developing power points, and trialing in-class hands on activities. Some ideas for topics we would like to include are: i) understanding bias in standardized speech testing, ii) the nuances of assessment with bilingual children, iii) transgender voice therapy

affirmation- understanding gender differences of speech/voice, iv) the sociolinguistic impact of glottal fry and v) accuracy of speech recognition software. (This work is funded by the American Speech-Language-Hearing Association AARC Award; There is no IRB for this project as it does not involve human subjects).

Qualifications/Training Provided:

Qualifications

• Preferred academic background: speech-language pathology or some associated field such as psychology, linguistics, education, medicine, or neuroscience
• Pre-requisite skills: Comfort with Microsoft office applications like Powerpoint and Word; Comfort with online platforms like Webex and Zoom
• Preferred skills: strong attention to detail, well-organized, works well with others, enthusiasm

Knowledge/Skills UPRISE scholar will acquire:

• Data ethics and integrity via CITI Training, IRB on-boarding, and lab on-boarding
• Experience with research participants: how to discuss research consent, how to facilitate research sessions
• Knowledge of voice disorders (e.g., laryngeal anatomy and physiology)
• Experience with literature reviews and online database searches
• Cross-discipline collaboration skills: speech-language pathology, vocal health specialists, physicians (laryngology), app-developers (computer scientists, graphic designers)