# SAMANTHA CHIU

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## Lead Researcher

#### **EDUCATION**

#### M.A. IN COGNITIVE PSYCHOLOGY

University of Iowa, Iowa City, IA December 2022

STANFORDONLINE: STATISTICAL LEARNING WITH R, EDX

October 2023

### KEY SKILLS

#### **UX METHODS:**

A/B testing, remote testing, behavioral experiments, perceptual studies, structured interviews.

Survey design and execution, social network analysis.

#### **PROGRAMMING:**

Languages: R, MATLAB, Python, SQL.

Tools: SPSS, GitHub.

**Libraries:** scikit-learn, Matplotlib, NumPy, pandas, PyTorch, Scrapy, re, lme4, and tidyverse.

#### **STATISTICS:**

Linear and Logistic Regression, Multivariate Statistical Analysis, descriptive statistics, t-tests, ANOVA, correlation analysis, EDA.

#### DATA VISUALIZATION:

R (ggplot<sub>2</sub>), Excel, PowerPoint.

#### **RESEARCH TOOLS:**

Gorilla.sc, REDCap, Amazon MTurk, Qualtrics E-Prime, and OpenSesame.

### **PUBLICATIONS**

McMurray, B., Sarrett, M. E., **Chiu, S.**, Black, A. K., Wang, A., Canale, R., & Aslin, R. N. (2022). Decoding the temporal dynamics of spoken word and nonword processing from EEG.

NeuroImage, 260, 119457.

Kutlu, E., **Chiu**, **S.**, McMurray, B. (2022) Moving Away from Deficiency Models: Gradiency in Bilingual Speech Categorization. Frontiers in Psychology.

#### **SUMMARY**

Experienced Researcher with 5+ years of experience in both qualitative and quantitative methodologies, and statistical analyses. Proven ability to manage multiple projects, collaborate with crossfunctional teams, and communicate complex findings to diverse audiences. Committed to utilizing data-driven insights to improve user experiences across languages and cultures.

#### **EXPERIENCE**

LAB MANAGER • AUGUST 2023 - PRESENT

#### University of Iowa - Voice Lab

- Led 5+ projects on speech perception and racialized identities, incorporating surveys, A/B testing, and social network analysis, resulting in submissions to academic conferences.
- Trained 7+ undergraduate researchers on experiment design, including calibration procedures, data collection, and analysis techniques, enhancing lab research capabilities.
- Fine-tuned a pre-trained speech recognition model in PyTorch, focusing on reducing accent biases in its performance.
- Created a content-based recommendation algorithm from text keywords using scikit-learn in Python.

## **RESEARCH PROJECT LEAD •** AUGUST 2020 - PRESENT **University of Iowa - Dept. of Psychological and Brain Sciences**

- Managed 1000+ participants, including recruitment, scheduling, consent, and debriefing for both online and in-lab experiments, ensuring smooth study execution.
- Analyzed behavioral and EEG data using R and SPSS, applying correlations, predictive modeling, and hypothesis testing to uncover insights into user behavior and auditory processing.
- Developed and presented 20+ talks using R (ggplot2) and PowerPoint for data visualization, effectively communicating complex research findings.
- Co-designed a Qualtrics survey with a marketing team, focusing on the cochlear implant journey of hearing-impaired individuals to streamline their experience and enhance product adoption.

## RESEARCH ASSISTANT • OCTOBER 2018 – AUGUST 2020 University of Iowa – MACLab

- Automated data cleaning and preprocessing using Python, R, and MATLAB, reducing preparation time by 50%.
- Initiated 10+ projects through in-depth literature reviews and pilot studies.