Latané Bullock

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EDUCATION

RICE UNIVERSITY
B.S. Elec & Computer Eng
B.A. Linguistics
Exchange at National Univ of Singapore
May 2020 | Houston, TX
GPA: 3.87

TEXAS ACADEMY OF MATH & SCIENCE
The University of North Texas
Concentration in Computer & Software Eng
May 2015 | Denton, TX
GPA: 4.0

COURSEWORK

Neural Signal Processing
Signals, Systems, and Machine Learning
Multilingualism
Sociolinguistics
Random Processes and Applications
Phonetics and Phonology
Language in Contact
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

EXPERIENCE

UT HEALTH MCGOVERN MEDICAL SCHOOL | Research Engineering Assistant
May 2020 - Current | Houston, Texas
- Analyze intracranial EEG recordings in language articulation and comprehension brain regions during production of a stereotyped word in over 8000 trials and 50 patients
- Conduct Tandon Lab experiment battery with patients in Epilepsy Monitoring Unit undergoing seizure onset zone localization.
- Oversee implementation of new data management system.

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.

ROCKHEAD STUDIOS | Software Engineering Intern
Summer 2017 | Porto Alegre, Brazil
- Developed 3D A* search algorithm to automatically connect segments of race track in mobile karting game.
- Thoroughly tested mobile archery game and crafted strategic player-experience improvement plan.
- Translated game versions to English and Spanish, advised English wording and syntax, voiced over game characters.

RESEARCH AND PROJECTS

SYNTHESIZED VOICE AND PHONETIC IMITATION Fall 2018
- Designed and developed (Python) experiment to investigate the effects of synthesized voices in phonetic imitation/convergence.
- Recruited subjects to engage in shadowing a perceived real voice and synthesized voice.
- Analyzed waveforms in PRAAT and R, extracting features such as Voice Onset Time.

LINGUISTIC STYLE IN ENGAGING ARTIFICIAL SYSTEMS Fall 2018
- Designed pilot experiment to characterize differences between speech when engaging a virtual assistant/artificial system versus a human.
- Conducted interviews with parallel questions in the virtual assistant and human phase, analyzed conversations at all linguistic levels.

AWARDS AND PUBLICATIONS

Bullock, Latané, Bredin, Hervé, García-Perera, Leibny (2020). **Overlap-Aware Diarization: Resegmentation Using Neural End-to-End Overlapped Speech Detection** . 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 7114-7118.

García-Perera, Leibny, et al., (2020). "**Speaker detection in the wild: lessons learned from JSALT 2019** ," Odyssey 2020.