Eric Wilbanks

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http://EricWilbanks.github.io
https://github.com/EricWilbanks/

Education

2018 - 2022 **Ph.D., Linguistics**; University of California, Berkeley
2016 - 2018 **M.A., Linguistics**; University of California, Berkeley
2014 - 2016 **M.A., English Linguistics**; North Carolina State University
2010 - 2014 **B.A., Spanish Language and Literature**; North Carolina State University

Skills

Experimental Experimental design; Data collection; Survey design; Acoustic analysis; Forced alignment; Mechanical Turk; Eye-tracking

Technical R; Python; Command Line; Git; Praat; Jupyter; HTK Speech Recognition; LaTeX; HTML & CSS *(basic)*; JavaScript *(basic)*; SQL *(basic)*; High performance computing *(basic)*; SLURM scheduler *(basic)*

Statistical Hypothesis testing; Clustering methods; Dimensionality reduction; Linear and logistic mixed-effects models; Generalized additive mixed-effects models; Bayesian inferential models

Languages English *(Native)*; Spanish *(Advanced)*

Relevant Experience

Language Engineer *Amazon - Alexa : Aug 2022 — Present*

Domain Consultant *Research IT, UC Berkeley: Jan 2022 — May 2022*

- crafted solutions for researchers' high-performance-computing, parallelization, and research data management problems through direct consulting meetings
- collaborated closely with a team from diverse technical and research backgrounds to understand users' workflows, needs, and constraints
- triaged, tested, and deployed debugging solutions based on users' help requests
- maintained and improved user-facing documentation for cluster-computing resources

Doctoral Researcher *Linguistics, UC Berkeley: Aug 2016 — Present*

- planned and executed long-term original research study on speech perception with over 1,000 participants using Amazon Mechanical Turk and in-person laboratory experiments
- crafted a successful NSF research grant proposal ($8,000) to design and conduct remote behavioral experiments and laboratory eye-tracking studies
- performed data analysis and visualization in Python and R, implementing and evaluating hierarchical Bayesian and generalized additive statistical model to generate insights and test hypotheses
- developed novel Python package for command line automatic text-to-phoneme alignment for Spanish speech data, including training HMM speech recognition models, writing user-facing documentation, and continued feature development and maintenance (`https://fasealign.readthedocs.io`)
- directly mentored 11 undergraduate research assistants in team-based research, annotation schemes, experimental design, data visualization, and data analysis (R and Python)
- organized and led technical workshops on topics such as Twitter data analysis in Python, forced alignment for speech data, and clustering algorithms (`https://ericwilbanks.github.io/#workshops`)

- communicated experimental results to wider scientific audience through conference presentations, publications, and dissertation (`http://ericwilbanks.github.io/files/wilbanks_cv.pdf`)

Course Designer and Instructor *Linguistics, UC Berkeley: Aug 2017 — Present*

- developed and deployed instructional materials and assessment tools for 3 novel courses on Psycholinguistics, Endangered Languages, and Writing
- conducted one-on-one mentoring, created targeted assessment materials, and led group instructional sessions for students in 7 courses covering Linguistics, Phonetics, and Quantitative Methods/Statistics (example material outcomes: `https://github.com/EricWilbanks/quant_methods_linguistics`)
- received recognition for excellence in instruction via the 2022 UC Berkeley Outstanding Graduate Student Instructor Award (awarded to top 10% of instructors)

Graduate Researcher *Linguistics, NCSU: Aug 2014 — Aug 2016*

- developed data-processing and data cleaning pipelines for a corpus of hundreds of hours of spontaneous sociolinguistic interviews and associated transcriptions
- conducted statistical analyses of patterns of community-level sound change using Python and R, culminating in a Master's thesis and academic publication
- designed experimental materials, pre-processing pipelines, and statistical analyses for phonetic laboratory studies of time-varying acoustic and video speech data, resulting in 4 scientific publications and presentations