wilbanks.ericw@gmail.com San Francisco, CA http://EricWilbanks.github.io https://github.com/EricWilbanks https://www.linkedin.com/in/eric-wilbanks

Work Experience

Language Engineer

Amazon - Alexa, San Francisco : Aug 2022 — Nov 2023

- constructed targeted datasets for Large Language Model supervised fine tuning, in-context learning, and evaluation
- developed Python workflows to automatically identify and correct annotation errors in model training and test sets
- applied NLP techniques to develop dozens of new customer-facing features and improvements
- balanced competing business, product, and user constraints to gather consensus among cross-functional teams on the optimal solution to business problems
- distilled complex data into technical reports and metrics to drive decision-making across multiple teams

Domain Consultant

- crafted solutions for researchers' high-performance-computing, parallelization, and research data management problems through direct consultations
- collaborated closely with a team from diverse technical and research backgrounds to understand users' computing workflows, needs, and constraints

Doctoral Researcher

- 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
- performed data analysis in Python/R, using statistical models to generate insights and test hypotheses
- developed Python package for automatic text-to-phoneme alignment for Spanish speech data (https://fasealign.readthedocs.io)
- trained 11 undergraduate research assistants in team-based research, annotation schemes, experimental design, and data analysis
- designed technical workshops on NLP and data analysis (https://ericwilbanks.github.io/#workshops)

Language Data Researcher

- developed automatic data-processing and transcription pipelines for corpus of hundreds of hours of interviews
- conducted statistical analyses of patterns of community-level sound change using Python and R, culminating in a Master's thesis and academic publications

| Programming | Python; R; SQL; Bash; git; pyTorch; pandas; NLTK; scikit-learn; Jupyter; LATEX |
|-------------|---|
| Analysis | Hypothesis testing and experimental design; Clustering methods; Dimensionality reduction; LLM prompt engineering; Acoustic analysis; Linear and logistic mixed-effects models |
| Languages | English (<i>Native</i>); Spanish (<i>Advanced</i>) |
| Education | |
| 2018 - 2022 | Ph.D., Linguistics; University of California, Berkeley |

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| 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 |
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Research IT, UC Berkeley: Jan 2022 — May 2022

Linguistics, UC Berkeley: Aug 2016 — Aug 2022

Linguistics, NCSU: Aug 2014 — Aug 2016