Bethany Gardner, PhD

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Linguist & Data Scientist

Psychology PhD with expertise in psycholinguistics, cognition, and quantitative methods. Experience annotating, validating, and analyzing text, survey, audio, behavioral, and eyetracking data. Currently applying linguistics and cognitive science research to tech by designing evaluation datasets for Siri.

Skills

- data annotation & validation
- data visualization
- text, survey, audio, behavioral, and eyetracking data
- quantitative methods
- statistical analysis
- regression modeling
- experimental design/AB testing
- reproducible analysis pipelines
- scientific writing & editing
- research presentations

Professional Experience

Linguistic Annotation Project Lead | Apple

October 2024 – Present

- **ML evaluation:** Designing evaluation datasets that test how new versions of Siri models handle specific linguistic and conversational features
- **Technical writing**: Authoring and annotation guidelines for a team of 30+ contractors

Contract Researcher | GoodRx

June 2024 - October 2024

- Survey data analysis: Lead analysis for surveys about healthcare access and experiences
- **Statistical programming**: Automated analysis of monthly surveys in R to increase efficiency and consistency

Data Scientist & Statistical Consultant | Freelance

October 2023 – October 2024

- **Data science:** Statistical consulting, statistical programming, data visualization, and data wrangling jobs, primarily in R
- **Consulting:** Worked with 40+ clients across academia, science communication, UX research, healthcare, and AI development, resulting in a 100% job success score on Upwork

Graduate Researcher | Vanderbilt University

August 2018 – August 2023

- Data annotation & validation: Designed and coordinated project about memory for conversation that involved developing, documenting, and validating a coding scheme for complex text and audio data
- **Project management:** Supervised 2–4 undergrad RAs per semester
- Experimental design & statistical analysis: Designed and implemented experiments; collected survey, writing, speech, and eyetracking data from 2,000+ participants; and performed regression analyses for 10 projects investigating language processing and learning
- Data science: Translated, optimized, and documented legacy code from MATLAB to Python/R
- Statistical programming: All projects published with open data and reproducible analyses
- Presenting & writing: Projects resulted in 10+ conference presentations, 1 published article, and 3 under-review articles

Funding: Secured \$17k in research grants from the NSF and Vanderbilt

Graduate Teaching Assistant | Vanderbilt University

January 2021 – May 2023

- **Organization:** Responsible for grading homework and exams for 100 students in intro linguistics and statistics courses
- **Teaching:** Guest lectured and held biweekly office hours, primarily supporting students learning new problem-solving strategies

Research Assistant | University Rochester, Vanderbilt University, Universidad de Granada January 2015 – July 2018

- Data annotation & attention to detail: Annotated conversation recall and acoustic data for psycholinguistics experiments
- **Data management:** Designed materials and collected data for language production, processing, and acquisition experiments
- Communication: Projects resulted in 5 conference presentations & 1 peer-reviewed publication

| Education | | | |
|-------------|--------------------------------|-------------------------|---------------|
| 2018 – 2023 | PhD, Psychological Sciences | Vanderbilt University | Nashville, TN |
| 2014 – 2018 | BS, Brain & Cognitive Sciences | University of Rochester | Rochester, NY |
| | Programming 8 | & Software | |

Advanced Experience: R, Python, Quarto/R Markdown, Word, PowerPoint, Excel

Intermediate Experience: Git/GitHub, Latex, R Shiny, SQL, Tableau

Some Experience: AWS, Docker, HTML/CSS, Java, Linux, MATLAB, SAS, SPSS, STATA