Bethany Gardner, PhD

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Data Scientist

Cognitive psychology PhD with expertise in statistical analysis, quantitative methods, data visualization, and statistical programming. Experience turning abstract concepts into concrete outcomes and determining what insights can be drawn from ambiguous data. Currently transitioning out of academia and looking to leverage my combination of social science and programming skills in a data science role.

Skills

- statistical analysis
- experimental design/AB testing
- regression modeling (including GLM, logistic, multilevel)
- data visualization
- data annotation & validation
- behavioral, text, survey, audio, and time series data
- R & Python
- reproducible analysis pipelines
- technical writing & editing

Professional Experience

Contract Researcher (Part Time) | GoodRx
Jun 2024 – Present

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

Data Scientist & Statistical Consultant | Freelance
Oct 2023 – Present

- **Data science:** Statistical consulting, statistical programming, data visualization, and data wrangling jobs, primarily in R
- **Consulting:** Have worked with 50+ clients across academia, science communication, UX research, healthcare, and AI development

Graduate Researcher | Vanderbilt University
Aug 2018 – Aug 2023

- **Data science:** Translated, optimized, and documented legacy code from MATLAB to Python/R
- **Statistical programming:** All projects published with open data and reproducible analyses
- **Data annotation & validation:** Designed & coordinated project about memory for conversation that involved developing, documenting, and validating a coding scheme for complex text 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
- **Funding:** Secured $17k in research grants from the NSF and Vanderbilt
- **Presenting & writing:** Projects resulted in 10+ conference presentations, 1 published article, and 3 under-review articles

Graduate Teaching Assistant | Vanderbilt University
Jan 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 of Rochester, Vanderbilt University, Universidad de Granada
Jan 2015 – Jul 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 & Software

Advanced Experience:	R, Python, Quarto/R Markdown, Excel, Word, PowerPoint
Intermediate Experience:	Git/GitHub, Latex, R Shiny, SQL, Tableau
Some Experience:	AWS, Docker, HTML/CSS, Java, Linux, MATLAB, SAS, SPSS, STATA