Molly Lewis

Computational Social Scientist (Phd, Psychology) with 10+ years using quantitative methods to understand and predict complex social behavior. Seeking to apply my expertise in machine learning, natural language processing, and experimental design in a researcher role. Passionate about Al fairness and ethics.

Contact

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mllewis.github.io

mllewis

Skills

Programming

R / tidyverse / Shiny

SQL

Data Analysis

Inferential statistics

Supervised ML (e.g., regression)

Unsupervised ML (clustering, PCA)

Unsupervised text analysis (e.g., topic models; LLMs)

Data visualization (e.g., ggplot2)

Mixed effects models

Network analysis (e.g., igraph)

Tools

NLP

Redshift

Literate coding (e.g., R markdown)

Git / Github

Experimental design

Survey design

c Experience

Quantitative UX Researcher

2023 - present

Meta, Facebook Research

NYC

Sr. Research Scientist (Quant. Researcher)

2022 - 2023

Amazon, Alexa

remote

- Lead project examining the predictors of Alexa device success after launch, collaborating with multiple XFN
- Extracted and wrangled massive dataset (>1B rows) of user behavior using Redshift
- Analyzed unstructured text data (customer reviews) to identify themes related to customer engagement and sales

Research Scientist

2019 - 2022

Carnegie Mellon University, Social and Decision Sciences

Pittsburgh, PA

- · Lead research projects, managed teams, and supervised undergraduate researchers
- · Published papers on bias in language models and presented work as senior author
- Developed open source teaching materials for R-based research methods course and taught course twice [course website]

Post-Doctoral Scholar

2017-2019

University of Chicago (Advisor: James Evans, Sociology)

Chicago, IL

- Used multilingual large-scale language models to understand the principles governing cross-linguistic variability in semantic structure
- · Collaborated with industry partners on analysis of 1M word corpus
- Communicated research to technical and non-technical audiences

Education

Stanford University

PhD. 2016

Psychology, Cognitive/Developmental (Advisor: Michael C. Frank)

Reed College

BA. 2009

Linguistics

Other coursework: Summer Institute in Computational Social Science (Princeton, NJ, 2017); Machine Learning Summer School (Tübingen, Germany, 2013)

Representative Publications

I have authored 25+ publications in peer-reviewed journals, conference proceedings, and popular press outlets, and given over 30 invited talks (see website for full list).

- Local similarity and global variability characterize the semantic space of human languages (Lewis, et al., 2023; PNAS) [publication]
- **Distributional semantics as a source of visual knowledge.** (Lewis, M., Zettersten, M. & Lupyan, G., 2019; *PNAS*) [publication]
- Gender stereotypes are reflected in the distributional structure of 25 languages (Lewis & Lupyan, 2020; Nature Human Behavior) [publication, repository]
- Why Responsible AI needs Psychology (Lewis, 2022) [blogpost]
- Social biases in word embeddings and their relation to human cognition. (Caliskan & Lewis, 2021; Atlas of Language Analysis in Psychology) [publication]
- What might books be teaching young children about gender? (Lewis, et al., 2021; Psych. Science) [publication, repository, app]