

# Timothy James Leffel

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✉ tjleffel@gmail.com

☎ +1(614)306-7814

<http://lefft.xyz> 

[github.com/lefft](https://github.com/lefft) 

## ABOUT

I'm a generative linguist by training, and a research/data scientist by profession. I've worked on projects ranging from document classification and topic modeling to data ingestion and automated reporting. I approach NLP problems with industry standard tooling and the intuitions of an empirically-focused language scientist. Enthusiast of: R, Python, the NBA, the history of math/logic, math/logic.

## WORK EXPERIENCE

- 2016– Research Scientist, Academic Research Centers. NORC at the University of Chicago.
- >> social media text mining (sentiment analysis, document classification, topic modeling)
  - >> pre-processing; training and evaluation; regression; simulation and resampling; visualization
  - >> development of data ingestion pipelines and automated reporting systems for RCTs
- 2015 Data science intern (p/t). Vantage Sports Inc.
- >> development and implementation of daily fantasy sports lineup optimization algorithm
  - >> evaluation of competing predictive models for daily fantasy performance of NBA players
- 2014–16 Postdoctoral Researcher. Language Processing Lab, Department of Linguistics. University of Chicago
- >> experimental design and implementation (surveys, eye-tracking for visual world studies)
  - >> data analysis and modeling (mixed-effects and logistic regression, RM-ANOVA, others)
  - >> dissemination of research results (conference presentations, proceedings and journal papers)
- 2010–16 Adjunct Instructor and Teaching Assistant in Linguistics and Psychology.
- >> primary instructor or TA for various undergrad courses in linguistics and psychology
  - >> 2016 at the University of Chicago; 2010–2014 at New York University

## EDUCATION

- 2014 PhD, Linguistics. New York University
- 2011 MA, Linguistics. New York University
- 2009 BA with honors, *magna cum laude*, Linguistics/Philosophy. The Ohio State University

## TECHNICAL SKILLS

### programming and scientific computing

- >> **R**—core packages: dplyr, ggplot2, purrr, lme4, rstan, quanteda. Happy in base or hadleyverse.
- >> **Python**—core libraries: pandas, numpy, scipy, nltk, spacy, scikit-learn. Usually use iPython/Jupyter.
- >> basic competency in Javascript, Haskell, Julia, Matlab. Quick and enthusiastic learner.

### algorithms, analysis techniques, etc.

- >> NLP: multinomial naive Bayes; decision trees; LDA;  $n$ -gram probability models; morphological analysis
- >> regression modeling (OLS, logistic regression, censored models); NHST; Bayesian estimation

### other skills

- >> AWS cloud computing (EC2/S3); (R)markdown; Shiny; basic web development; git; github;  $\text{\LaTeX}$