

# Elizabeth Sander

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## Experience

### Civis Analytics, Chicago, IL

*Tech Lead, Data Science*

January 2020 – Present

*Lead Data Scientist*

September 2019 – January 2020

- Manage a cross-functional team of data scientists and engineers
- Develop and execute on roadmap for survey products
- Support survey code responsible for running and analyzing 2 million survey completes per year
- Develop methodology to automate survey orchestration and analysis, including quotas, weighting, and modeling bad survey-takers

*Senior Data Scientist*

October 2018 – September 2019

*Data Scientist*

July 2017 – October 2018

*Data Science Research & Development Intern*

Summer 2016

- Write and maintain R and Python libraries to automate data science workflows
- Research and develop methodologies to solve client problems, such as segmentation, customer acquisition, persuasion, and advertising budget optimization
- Work in cross-functional teams with engineers to build data-driven web services
- Product scoping and user research for modeling products
- Develop novel methodology for human-in-the-loop segmentation, patent pending

### DataKind, Chicago, IL

*Volunteer Data Expert*

November 2018 – March 2019

- Worked in small team to provide *pro bono* data science services to green energy advocacy organization

### University of Chicago, Chicago, IL

*Graduate Student*

2012 – 2017

- Implemented and tuned optimization algorithms (genetic algorithms, Metropolis-coupled MCMC) in C
- Simulated large dynamical systems in R
- Used Dynamic Bayesian Networks, likelihood models to study ecological networks
- Teaching assistant for scientific computing course

## Skills

**Languages:** Python (PyData stack, SQLAlchemy, Flask), R (ggplot, tidyverse, igraph), SQL (Redshift, Postgres, sqlite), C, bash, MATLAB/Octave, Go

**Tools:** Git, Docker, Qualtrics, AWS, SVN, Emacs, L<sup>A</sup>T<sub>E</sub>X

## Education

**Ph.D., Ecology and Evolution**, University of Chicago

May 2017

NSF Graduate Research Fellow, 4.0 GPA

**B.A. in Mathematics** with Honors, University of Vermont

May 2012

*Summa cum laude*, Honors College Scholar, 4.0 GPA