

Allison C. Kelly

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Highlighted Experience

Data Scientist II, *Branch International*, San Francisco, CA *Jan. 2020 - May 2020*

- Trained and deployed machine learning models (random forest, logistic, XGboost, LSTM).
- Employed NLP tools (nltk, GloVe, LSTM) to categorize large volumes of unstructured text data.
- Wrote production quality code (python, SQL) to engineer features for inclusion in production ML models.
- Wrote SQL statements to efficiently query large-scale complex databases and perform exploratory data analyses at-scale.

Data Science Fellow, *Insight Data Science*, San Francisco, CA *Sept. 2019 - Nov. 2019*

- Built an interactive web app in Python using Flask to help shelters improve dog adoption outcomes.
- Collated data from over 20,000 dog listings; merged, cleaned, and analyzed data in Python (pandas, nltk).
- Employed LDA topic modeling (gensim) and machine learning models (scikit-learn) in Python to identify dog profile topics associated with an up to 30% increase in a dog's odds of adoption within 2 weeks.

Senior Research Analyst, *GlobeScan*, San Francisco, CA *Sept. 2018 - Sept. 2019*

- Produced concise and accessible research analyses for major corporate clients helping them to understand internal and external stakeholders, make purpose-driven business decisions, and work towards sustainability leadership.
- Designed quantitative survey research tools (Qualtrics) to produce data to fulfill client information needs.
- Delivered high quality reports, data analyses, and thought leadership reaching 1,000s of stakeholders.

Postdoctoral Research Fellow, *University of Michigan*, Ann Arbor, MI *Sept. 2017 - Oct. 2018*

- Created data management scripts in R with corresponding documentation to systematically standardize household panel survey data across 4 countries for use in online dashboards.
- Used statistical matching techniques to estimate the effect of land use policy changes on rural livelihoods.
- Collaborated on an Agent Based Model of small-scale farmer behavior in Ethiopia: organized, cleaned, and analyzed data (spatial and household survey data in R).

Research Assistant, *University of Washington*, Seattle, WA *Sept. 2011 - Aug. 2017*

- Enabled grant portfolio analysis for \$100s of millions of grants at the Bill & Melinda Gates Foundation:
 - Piloted automated text and content analysis of unstructured grant documentation (nltk, gensim) in Python to allow program officers to look across the portfolio.
 - Established and documented best practices for survey data curation to inform monitoring, evaluation, and learning processes and internal dashboard development (R, STATA, and Github).

Returned Peace Corps Volunteer *Panama 2009 - 2011; Mexico 2015 - 2016*

Technical Training and Skills

Data Modeling and Analysis Skills: Machine learning, hypothesis testing, social network analysis, survival analysis, natural language processing (nltk, gensim), geospatial analysis (GIS), survey sample design, unsupervised clustering

Programming Languages: R (7 years), Python (6 years), SQL (1 year)

Education

PhD, Public Policy and Management, *Dec. 2017*

PhD Concentration in Statistics, Center for Statistics and the Social Sciences,
Evans School of Public Policy and Governance, University of Washington

Master of Science, *Evans School of Public Policy and Governance, University of Washington* *Dec. 2014*

Bachelor of Science, Conservation and Resource Studies, High Distinction *Dec. 2006*
College of Natural Resources, University of California at Berkeley