

**Stephanie Buongiorno** (available to work in person)

**Skills**

- 5 years experience collecting, processing, and modeling large amounts of data (up to ~200 GB) using Python, R, SQL, Shell, and Git.
- 4 years of leadership experience on multidisciplinary research teams (domestic and international), giving talks to technical and non-technical audiences, and directing student work.
- 4 years of experience creating new documents for grant-funded research.

**Recent Professional Experience**

Technical Lead at the Human Trafficking Project 2022-23

Congressional Funding Bill (H.R. 2471), Southern Methodist University

- I am addressing a human rights issue in collaboration with academic researchers from four university departments and in conversation with members of Congress.
- I lead the development of an ethical, human-in-the-loop AI system to improve predictive named entity recognition.
- I am augmenting a graph database to improve analysis on topics like inequality.
- I perform various HR roles including creating new documents (e.g. data sharing agreements), hiring, and training researchers (graduate students to faculty who have not performed grant research before).

Teaching Fellow at Foundations and Applications of Humanities Analytics 2022-23

National Endowment of the Humanities (NEH) Grant (no. HT-272418-20), Santa Fe Institute

- I plan, teach, and evaluate workshops on text mining and data analytics for humanities data.
- I foster an inclusive and intellectually rigorous classroom for researchers with diverse backgrounds, from senior faculty to early career graduate students.

Technical Lead for Global Urbanization and Housing Affordability: Poverty, Property and the City 2018-21

National Science Foundation (NSF) Grant (no. 1520103), Southern Methodist University

- I developed the first app that applies advanced natural language processing techniques to the c19 British Parliamentary debates for research in DH. I used frameworks like gensim and spaCy.
- I developed an information extraction method in Python and R (for analyzing subject-object relationships) which has ~20% higher precision and recall than existing methods.
- I stored and processed data sets of 100-200 years of historical data in the form of tables, matrices, and n-grams for time-series analysis. I ran language models locally and on a Unix supercomputer.
- I hired, trained, and managed a team of 3-6 undergraduates from CS, public policy, and history to create a system for disambiguating speakers in 100 years of historical data.

Research Assistant for "Toward a History of the Associative-Developmental State" 2021-22

- I hired and collaborated with an ArcGIS specialist to make historical maps of New York and its labor movements over time. I geocoded and mapped addresses using geopandas, geopy, and folium.

Research Assistant for "A History of Early and Modern China" 2021

- I stored and processed csv data for time series analysis. I topic modeled debates from Hong Kong's legislative council to show change throughout the 20th-century.

**Education**

PhD, ABD, Applied Science in Engineering, Southern Methodist University

Expected 2023