

Timothy A. Model

Computational Social Science Researcher

Resumé

June 2020

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Experience

Chief Data Scientist

May 2020 – Present

CoronaNet Research Project

- ▶ Leading a team of 25 international data scientists and engineers in data pipeline development and maintenance
- ▶ Implementing quality control protocols, validation tools, and performance metrics using Shiny and R
- ▶ Improving efficiency of complex data processing models in R
- ▶ Generating data visualizations for public engagement

Havighurst Fellow

August 2019 – May 2020

Miami University, Oxford, OH

- ▶ Conducted 3 independent research projects on protest politics, political corruption, and survey measurement strategies that resulted in public-facing publications and conference papers
- ▶ Produced and analyzed longitudinal, textual, network, and biographical datasets with up to 1 million observations
- ▶ Designed and implemented an international survey instrument
- ▶ Managed \$700,000 worth of grant applications to study variation in political responses to COVID-19 pandemic
- ▶ Presented research at 2 international conferences and 3 invited talks
- ▶ Published an op-ed and featured on interview with major news organizations
- ▶ Taught 4 courses on research methods, political economy of development, and political corruption
- ▶ Reviewed Freedom House's Russia report

Doctoral Researcher & Associate Instructor

August 2013 – July 2019

Department of Political Science, Indiana University, Bloomington, IN

- ▶ Supervised 3 research teams in collecting, analyzing, and visualizing survey, focus group, and observational data
- ▶ Completed 6 research projects on election fraud, political corruption, anti-corruption strategies, and protest politics
- ▶ Collaborated on international and multidisciplinary teams to implement 2 international surveys and focus groups
- ▶ Analyzed data across 4 languages using quantitative and qualitative methods
- ▶ Developed 7 cross-national datasets with biographical, longitudinal, panel, network, and textual data containing up to 1 million observations
- ▶ Presented quantitative research at 9 international and multidisciplinary conferences
- ▶ Earned \$50,000 in grants to support independent research
- ▶ Trained students in 9 courses on research methods, political corruption, Russian politics, and political theory
- ▶ Consulted on statistical analysis for 2 peer-reviewed publications in biochemistry and political science
- ▶ Prepared statistical algorithms for interpreting univariate distribution and modality test results

Technical Skills

- ▶ Programs and Programming Languages: R, JAGS, Stata, Python, SQL, LaTeX, R Markdown, AWS, SQL
- ▶ Data Visualization: ggplot2, Plotly, Shiny, Tableau, Microsoft Power BI
- ▶ Methods: Generalized Linear Modeling, Natural Language Processing, Hierarchical Modeling, Time Series Analysis, Spatial Analysis, Network Analysis, Bayesian Approaches, Data Reduction and Classification Techniques (e.g., Factor Analysis, PCA, LCA), Causal Inference
- ▶ Languages: English (native), Russian (advanced), Spanish (beginner)

Awards

- ▶ John V. Gillespie Memorial Scholarship for excellence in mathematical modeling and quantitative methodology
- ▶ Department of Political Science Graduate Leadership Award
- ▶ Outstanding Associate Instructor Award for Best Graduate Student Instructor

Education

Ph.D., Political Science, Indiana University.

2019

B.A., Diplomacy/Global Politics & Russian, East European, and Eurasian Studies, Miami University.

2012