

# Andrew L. Halterman

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## EDUCATION

Massachusetts Institute of Technology, Cambridge, MA Sept. 2015--present  
PhD Candidate, Political Science  
Committee: Rich Nielsen (chair), Fotini Christia, In Song Kim  
Affiliations: Security Studies Program, Political Methodology Lab  
Research areas: quantitative methods, natural language processing, security studies

Amherst College, Amherst, MA Sept. 2007--May 2011  
Bachelor of Arts, magna cum laude, Political Science

## PEER-REVIEWED PUBLICATIONS

1. Andrew Halterman, 2019, "Geolocating Political Events in Text," Proceedings of the Third Workshop on Natural Language Processing and Computational Social Science, NAACL. [[Paper](#), [Poster](#), [Code](#)]
2. Andrew Halterman, Jill Irvine, Manar Landis, Phanindra Jalla, Yan Liang, Christan Grant, and Mohiuddin Solaimani, 2017, "Adaptive Scalable Pipelines for Political Event Data Generation," The IEEE International Workshop on Benchmarking, Performance Tuning and Optimization for Big Data Applications (BPOD 2017). Boston, Massachusetts. [[Paper](#)]
3. "Mordecai: Full Text Geoparsing and Event Geocoding," 2017, The Journal of Open Source Software, vol. 2, no. 9. [[Python Package](#)]
4. John Beiler, Patrick Brandt, Andrew Halterman, Philip Schrodtt, and Erin Simpson, 2016, "Generating Political Event Data in Near Real Time: Opportunities and Challenges," Computational Social Science: Discovery and Prediction, ed. R. Michael Alvarez, Cambridge University Press.
5. Andrew Halterman and Jill Irvine, 2014, "Bounded Altruism: INGO Opportunities and Constraints during Humanitarian Crises and US Intervention," Journal of East European Politics Vol. 30, Issue 4, 458--481.

## CONFERENCE and WORKING PAPERS

1. Andrew Halterman, "Learning Political Events from Text." [[Paper](#), [Poster](#)]
2. Andrew Halterman, Jill Irvine, and Khaled Jabr, "Do the answers you get depend on the news you read? Protests and violence in Syria." (APSA 2019, Washington, MA). [[Paper](#)]
3. Andrew Halterman, "Violence against civilians in the Syrian civil war." under review. [[Paper](#), [Appendix](#)]
4. Rachel Tecott and Andrew Halterman, "Campaign Analysis: Demystifying the Method", under review.
5. Paige Bollen, Andrew Halterman, and Blair Read, "Do Perceptions Match Provision? Investigating the Gap between Levels of Service Provision and Citizen Perceptions in Sub-Saharan Africa." (APSA 2019, Washington, DC).
6. Jill Irvine, Andrew Halterman, and Nicholas Halterman, "How Right Wing is Right Wing Populism? Evidence from the Manifesto Corpus," (Manifesto Corpus Conference, 2918, Berlin). [[Paper](#)]
7. "Creating an Automated Event Data System for Arabic Text," Annual Meeting of the International Studies Association (ISA). San Francisco, CA. 2018 (with Jill A. Irvine, Christan Grant, Khaled Jabr, Yan Liang)
8. Andrew Halterman, Benjamin Valentino, and Jay Ulfelder, "Mining News Stories for Predictive Signals of State-Led Mass Killing," (ISA 2016, Atlanta, GA).
9. Andrew Halterman, "Forecasting Anti-Regime Mobilization Using Structural Variables and Event Data," (ISA 2015, New Orleans, LA).
10. "A New, Near-Real-Time Event Dataset and the Role of Versioning," European Network for Conflict Research (ENCoRe) Fall Conference, Uppsala, Sweden (October 2014). [[Paper](#), [Code](#)]

11. Andrew Halterman and Jill Irvine, "Measuring Political Mobilization: Insights from Massive Machine-Coded Datasets," (ISA 2014, Toronto). [[Paper](#), [Code](#)]

#### FELLOWSHIPS, AWARDS, AND GRANTS

NSF Graduate Research Fellowship, covering three years of tuition and stipend (one of 12 nationally)

Presidential Fellowship, MIT, covering first year of tuition and stipend (awarded to 125 students across MIT).

MIT Department of Political Science and Political Methodology Group funding for research and travel (2016, 2017, 2018, 2019).

Minerva Initiative project W911NF-13-0332, new techniques for measuring territorial control in civil wars.

Key named personnel on NSF RIDIR grant: "Extending Automated Event Data Coding Across Language, Location, and Source." Other team members/PIs consist of Patrick Brandt (project lead), Benjamin Bagozzi, John Freeman, Jennifer Holmes, Jill Irvine, Javier Osorio, and Philip Schrodt. SBE-SMA-1539302

#### TEACHING EXPERIENCE

Instructor of record for "Political Science Lab" (Nina McMurry, co-instructor). Undergraduate course for political science majors on causal inference and statistical programming with R.

Teaching assistant for "Quantitative Methods 4", (In Song Kim, instructor), graduate course focusing on machine learning and advanced topics. Overall evaluation: 7.0/7.

Instructor for MIT Political Methodology Workshop series. "Numerical Python and Pandas" (2020), "Automated Text Analysis for Political Science" (2019), "Introduction to Python and Web Scraping" (2018, 2019), "dplyr + ggplot2: Grammars of Data Manipulation and Graphics in R" (2017).

Instructor for Introduction to LaTeX, Markdown, and Beamer for first semester PhD students (2016)

#### PROFESSIONAL SERVICE

Referee for Political Analysis, Transactions in GIS.

Co-founder and organizer, "Quantitative Works in Progress" working group, MIT Department of Political Science (2019--).

Co-organizer, "Graduate Student Works-in-Progress" working group, MIT Department of Political Science (2017--2018).

Chair and organizer for an International Studies Association panel, "Forecasting about the Future: Novel Forecasting Techniques and New Predictions" (February 2015).

Chair and organizer for an International Studies Association roundtable, "Assessing Forecasts of (Rare) International Events" (February 2015).

Founding member of the Open Event Data Alliance, a non-profit organization of scholars and researchers engaged in work on generating, using, and evaluating event data automatically extracted from text data.

#### PROFESSIONAL EXPERIENCE

Machine Learning Engineer	Kensho Technologies Washington, DC	May 2017--August 2017
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Implemented data pipelines for transforming text into structured event data. Developed techniques for automated dictionary development. Deployed a custom text geoparsing system.

Technical Consultant	various	May 2017--present
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Andrew L. Halterman

Washington, DC, Boston, MA

Provided technical advice and custom software for several clients including university research projects, a nonprofit, and a sports betting operation. Projects included automating predictive models, developing new pipelines for extracting meaning from text, and code to manage active learning annotation with multiple coders.

Analyst	Caerus Associates Washington, DC	July 2013--June 2015
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Member of Caerus's data science team, working on automated extraction of political information from news sources, including securing new source material, building models and visualizations using event data, and improving the data production process. Built and applied open source software for extracting meaning from large datasets as part of a DARPA flagship big data program.

Research Intern	Center for Strategic and International Studies Washington, DC	Sept. 2012--May 2013
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Fulbright Fellow	Kosovar Institute for Policy Research and Development Prishtina, Kosovo	Sept. 2011--June 2012
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#### SKILLS

Data Analysis: fluent in R and Python, large datasets (500 GB+), machine learning, Python and R package creation, visualization (ggplot2, ggvis, Shiny), reproducible research, NLP and data extraction from text, database creation and management

Software: Python, R, spaCy, Keras, Docker, SQL, MongoDB, Elasticsearch, Unix/Linux/shell, LaTeX, CoreNLP, git

(Human) Languages: German (full proficiency), Gheg Albanian (conversational)

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