Andrew W. Pierce

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1105 Whit Davis Road
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ACADEMIC POSITIONS

2018 - Present — Honors Teaching Fellow, University of Georgia

EDUCATION

2015 — Ph. D. Political Science, Emory University
Dissertation: *Incorporation, Socialization, and the Development of Partisan-Ideological Polarization.*
2021 — M. S. Computer Science, Georgia Institute of Technology
2009 — M. A. Political Science, University of Georgia
2008 — A. B. Political Science, University of Georgia
2008 — A. B. Philosophy, University of Georgia

PUBLICATIONS

2019 — Webster, Steven W., and Andrew W. Pierce. "Older, Younger, or More Similar? The Use of Age as a Voting Heuristic." *Social Science Quarterly.* 100(3): 635-652

2012 — Esarey, Justin and Andrew Pierce. "A New Model Specification and Fit Assessment Statistic for Binary Dependent Variable Models." *Political Analysis.* 20: 480-500.

CURRENT RESEARCH IN PROGRESS

Sorted and Polarized: The Foundations of Partisan-Ideological Change in the American Electorate

Partisan Polarization and Gender Socialization in the United States

How Race Influences the Impact of Anger on Trust in Government, with Steven Webster

A Substantive, Not Statistical Problem: Multicollinearity and Quantities of Interest

Improving Estimates of Ideology Across Time with Machine Learning

TEACHING EXPERIENCE

Instructor of Record for:
- Introduction to American Government
- Intro to Political Science Research Methods
- Identity Politics
- Electoral Behavior

CONFERENCE PRESENTATIONS

"A Substantive, Not Statistical Problem: Multicollinearity and Hypothesis Testing," Poster Presented at the 2014 Annual Meeting of the Society for Political Methodology

"Sorted and Polarized: The Foundations of Partisan-Ideological Change in the American Electorate," Paper Presented at the 2014 Annual Meeting of the Midwest Political Science Association

"When Did Polarization Begin?: Improving Upon Estimates of Ideology over Time" Poster Presented at the 2013 Annual Meeting of the Society for Political Methodology

"Political Incorporation, Socialization, and Black Public Opinion." Paper presented at the 2013 Annual Meeting of the Midwest Political Science Association

"Improving Estimates of Macro-Ideology across Time and Space." Paper presented at the 2013 Annual Meeting of the Midwest Political Science Association
"Assessing Fit Quality and Testing for Misspecification in Binary Dependent Variable Models." Poster presented at 2012 Annual Meeting of the Society for Political Methodology

"Gender Socialization and Polarization in American Politics." Paper presented at the 2012 Annual Meeting of the Midwest Political Science Association

"Issue Ownership in Presidential and Senatorial Elections, 1980-2000." Paper presented at the 2009 Annual Meeting of the Midwest Political Science Association

WORK EXPERIENCE

2015 - 2018   **Senior Data Scientist, ADP**
- Cleaned, summarized, and analyzed large-scale data (over 400M employee records) with R, Python, SQL (Hadoop Hive), and Apache Spark
- Quantified job-level time-to-fill metric with hierarchical Poisson model for over 500 job titles in R
- Classified individual-level turnover on over 5 million employees using Apache Spark
- Built interactive Tableau visualizations for communicating statistical insights to sales prospects and internal management to support data-driven decision-making
- Presented model, predictions, and product applications to senior management, sales prospects, internal stakeholders, and at company-sponsored meet-ups
- Answered ad-hoc analysis requests from external groups using Tableau and PowerPoint
- Applied k-means to cluster 5 million employees into management hierarchies
- Supervised the training, development, and project efforts of over 20 interns, including the transition of one intern project into production
- Recruited, interviewed, and made hiring recommendations over 50 intern candidates from Georgia Tech and other regional universities
- Authored white paper and Tableau visualization for sales investigating the relationship between span of control and voluntary turnover
- Collaborated with sales teams on communicating value in data to over 100 clients and prospects
- Recognized twice with internal awards for being "results driven"

- Filed for 5 patents for products being used by over 400k clients based on research and development efforts
- Utilized Natural Language Processing and multinomial classification models to classify over 21,000 pay code acronyms to improve data quality
- Estimated text matches using simple semantic analysis and latent semantic analysis to match over 13,000 companies to their probable industries
- Developed Shiny app for deploying user-facing matching function from R
- Scraped data from websites using public-facing page fronts and supported APIs and visualized scraping results using wordclouds

REFEREE EXPERIENCE
Political Behavior

SOFTWARE/LANGUAGE PROFICIENCIES
R, Python, SQL, Stata, Excel, Tableau

SOFTWARE
heatmapFit package for R (version 2.0.4 uploaded 6/6/2016). Co-authored with Justin Esarey and Jericho Du. URL: http://goo.gl/AlJtOS. As of April 10, 2018, this package has been downloaded 12630 times from the RStudio CRAN mirror.

HONORS AND AWARDS
Phi Beta Kappa, University of Georgia

REFERENCES

Alan Abramowitz
Department of Political Science
Emory University
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Beth Reingold
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