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| ACADEMIC POSITIONS | American University | Washington, DC |
| | Assistant Professor of Computer Science | 2024 - |
| | Faculty Fellow, Center for Data Science | |
| | Faculty Affiliate, Center for Security, Innovation, and New Technology | |
| | Affiliate Faculty Fellow, Institute for Applied Artificial Intelligence | |
| | New York University's Center for Social Media and Politics | New York, NY |
| EDUCATION | Faculty Research Affiliate | 2024 - |
| | Postdoctoral Fellow | 2021 - 2024 |
| | University of Michigan | Ann Arbor, MI |
| | <i>Ph.D. in Political Science and Scientific Computing</i> | 2015 - 2021 |
| | <i>M.A. in Statistics</i> | 2016 - 2021 |
| | University of Chicago | Chicago, IL |
| PUBLICATIONS | <i>B.A. in Political Science (with honors) and Statistics</i> | 2010 - 2014 |
| | 6. <u>Patrick Y. Wu</u> . 2025. "Using Semantically Unrelated and Opposite Terms for In-Context Learning: A Case Study in Identifying Political Aversion in Tweets." <i>Proceedings of the 17th ACM Web Science Conference 2025 (Websci '25)</i> . [Paper] | |
| | 5. Rupak Sarkar, <u>Patrick Y. Wu</u> , Kristina Miler, Alexander Hoyle, and Philip Resnik. 2025. "PairScale: Analyzing Attitude Change with Pairwise Comparisons." <i>Findings of the Association for Computational Linguistics: NAACL 2025</i> . [Paper] | |
| | 4. <u>Patrick Y. Wu</u> , Jonathan Nagler, Joshua A. Tucker, and Solomon Messing. 2024. "Concept-Guided Chain-of-Thought Prompting for Pairwise Comparison Scoring of Texts with Large Language Models." <i>2024 IEEE International Conference on Big Data (BigData)</i> . [Paper] | |
| | 3. Nicole Wu* and <u>Patrick Y. Wu</u> *. 2024. "Surveying the Impact of Generative Artificial Intelligence on Political Science Education." <i>PS: Political Science & Politics</i> . (* denotes equal contribution) [Paper] | |
| | 2. <u>Patrick Y. Wu</u> , Richard Bonneau, Joshua A. Tucker, and Jonathan Nagler. 2022. "Dictionary-Assisted Supervised Contrastive Learning." <i>Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)</i> . [Paper] | |
| | 1. <u>Patrick Y. Wu</u> and Walter R. Mebane, Jr. 2022. "MARMOT: A Deep Learning Framework for Constructing Multimodal Representations for Vision-and-Language Tasks." <i>Computational Communication Research</i> 4(1): 275-332. [Paper] | |

PREPRINTS

7. Patrick Y. Wu. 2025. “Large Language Models Can Be a Viable Substitute for Expert Political Surveys When a Shock Disrupts Traditional Measurement Approaches.” [\[arXiv\]](#)
6. Megan A. Brown, Shubham Atreja, Libby Hemphill, Patrick Y. Wu. 2025. “Evaluating how LLM annotations represent diverse views on contentious topics.” [\[arXiv\]](#)
5. Patrick Y. Wu, Jonathan Nagler, Joshua A. Tucker, and Solomon Messing. 2024. “Large Language Models Can Be Used to Estimate the Latent Positions of Politicians.” [\[arXiv\]](#)
4. Walter R. Mebane, Jr., Diogo Ferrari, Kevin McAlister, and Patrick Y. Wu. 2022. “Measuring Election Frauds.” [\[Working Paper\]](#)
3. Diogo Ferrari, Robert Franzese, Hayden Jackson, ByungKoo Kim, Wooseok Kim, and Patrick Y. Wu. 2020. “The Role of Economic Decline and Malaise in the Rise of Extreme Nationalist Populism.” [\[Working Paper\]](#)
2. Patrick Y. Wu, Walter R. Mebane, Jr., Logan Woods, Joseph Klaver, and Preston Due. 2019. “Party Words: Partisan Associations from Word Embeddings of Twitter Users’ Bios.” [\[Working Paper\]](#)
1. Walter R. Mebane, Jr., Patrick Y. Wu, Logan Woods, Joseph Klaver, Alejandro Pineda, and Blake Miller. 2018. “Diverse Election Experiences Reported Without Bias: Observing Election Incidents in the United States via Twitter.” [\[Working Paper\]](#)

INVITED PRESENTATIONS

- Seminar Speaker, Department of Computer Science at Virginia Tech (2025)
- Speaker, AU-ASA at American University (2025)
- Keynote speaker at EvalTech, Inter-American Development (2025)
- QTM Speaker Series, Department of Quantitative Theory and Methods at Emory University (2024)
- Workshop on Natural Language Processing, Summer Institute in Computational Social Science at New York University (2023)
- “Linking Online Activity to Offline Behavior,” IDEaS Workshop at Carnegie Mellon University (2023)

TEACHING

Graduate

- Object-Oriented Programming, American University (cross-listed with undergraduate) (Winter 2025)
- Natural Language Processing and Text as Data, American University (cross-listed with undergraduate) (Fall 2024)
- Machine Learning: Applications in Social Science Research, ICPSR Summer Program in Quantitative Methods (with Christopher Hare as TA) (Summer 2020)
- Statistical Methods in Political Research II, University of Michigan (with Rocio Titunik as TA and Kevin Quinn as grader) (Winter 2018, Winter 2019, Winter 2020)
- Mathematics for Political Scientists, University of Michigan (with Iain Osgood as TA) (Fall 2016, Fall 2017)

Undergraduate

- Object-Oriented Programming, American University (cross-listed with graduate) (Winter 2025)
- Natural Language Processing and Text as Data, American University (cross-listed with graduate) (Fall 2024)
- Introduction to Computational Political Science, University of Michigan (with Yuki Shiraito as grader) (Winter 2021)
- Comparative Analysis of Government Institutions, University of Michigan (with George Tsebelis as grader) (Fall 2019)

SERVICE

- Editorial Board, *Social Science Computer Review* (2025 -)
- Coordinator, Interdisciplinary Seminar in Social Science Methodology, University of Michigan (2019 - 2021)
- Coordinator, Statistical Learning Workshop, University of Michigan (2018 - 2019)
- Program Committee: ECML PKDD (2025)
- Reviewer: ACL Rolling Review (Ethics Reviewer), ACL Student Research Workshop, *American Journal of Political Science*, *Computational Communication Research*, Conference on Language Modeling (COLM), *Harvard Data Science Review*, *Information Fusion*, *Journal of Health Communication*, *PNAS Nexus*, *Political Analysis*, *Political Communication*, *PS: Political Science and Politics*, *Political Science Research & Methods*, *Public Opinion Quarterly*, *Social Network Analysis and Mining*, *Social Science Computer Review*, Workshop on Images in Online Political Communication (PhoMemes)
- Grant Reviewer: NSF, SNSF

AWARDS & HONORS

- Mellon Competition, \$1,900, American University (2024)
- MICDE Fellowship, \$4,000, Michigan Institute for Computational Discovery and Engineering (2020)
- Best Poster, UMTweetCon (2019)
- Best Paper, UMTweetCon (2019)
- Roy Pierce Scholars Fund, \$6,000, University of Michigan Institute for Social Research Center for Political Studies (2018)
- Honorable Mention, NSF Graduate Research Fellowships Program (2017)
- Dean's List, University of Chicago (2014)

MEDIA

1. “For Trump’s Backers in Congress, ‘Devil Terms’ Help Rally Voters.” *New York Times*. 2022. Assisted with text analysis in the article.
2. “This is how you file a legal election complaint.” *Monkey Cage*. 2016. Author.

SOFTWARE

- **CGCoT**: Python implementation of concept-guided chain-of-thought (with Jonathan Nagler, Joshua A. Tucker, and Solomon Messing) [\[Code\]](#)
- **DASCL**: Python implementation of the dictionary-assisted supervised contrastive learning framework (with Richard Bonneau, Joshua A. Tucker, and Jonathan Nagler) [\[Code\]](#)
- **eforensics**: R package to estimate fraud in elections using finite mixture models (with Diogo Ferrari, Kevin McAlister, and Walter R. Mebane, Jr.) [\[Code\]](#)
- **MARMOT**: Python implementation to calculate joint image-text representations that may be missing a modality (with Walter R. Mebane, Jr.) [\[Code\]](#)
- **PartisanAssociations**: Python implementation of calculating partisan associations of Twitter users using their user bios (with Walter R. Mebane, Jr., Logan Woods, Joseph Klaver, and Preston Due) [\[Code\]](#)