Patrick Y. Wu

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Academic Positions

American University
Assistant Professor of Computer Science (2024–)
Affiliate Faculty Fellow, Institute for Applied Artificial Intelligence (2025–)
Faculty Affiliate, Center for Security, Innovation, and New Technology (2025–)
Faculty Fellow, Center for Data Science (2024–)

New York University's Center for Social Media, AI, and Politics
Faculty Research Affiliate (2024–)
Postdoctoral Fellow (2021–2024)

Education

University of Michigan
Ph.D. in Political Science and Scientific Computing (2015–2021)
M.A. in Statistics (2016–2021)

University of Chicago
B.A. in Political Science (with honors) and Statistics (2010–2014)

Publications

13. Patrick Y. Wu, Venkata Dhanush Kikkisetti, Suneela Maddineni, and Nathalie Japkowicz. 2026. "A Computational Approach to Discovering Emergent Hate Speech on Social Media." Forthcoming in *Digital Hate Review*.

12. Cristina J. Perez, Michael P. Vasquez, Jr., Philippe Giabbanelli, and Patrick Y. Wu. 2026. "Simulating Social Attitudes with LLMs: Accuracy, Demographic Effects, and Refusal Behavior in the Sensitive Domain of Suicide Prevention." Forthcoming in the *Proceedings of the Seventh Workshop on Natural Language Processing and Computational Social Science (NLP+CSS 2026)*. [Paper]

11. Patrick Y. Wu. 2026. "Beyond Price: A Technical Quality Framework for AI Antitrust." *Proceedings of the 2026 ACM Conference on Fairness, Accountability, and Transparency (FAccT)*. [Paper]

10. Megan A. Brown, Shubham Atreja, Libby Hemphill, and Patrick Y. Wu. 2026. "The Context Dependency of Demographic Bias in LLM Annotation." *Proceedings of the 2026 ACM Conference on Fairness, Accountability, and Transparency (FAccT)*. [Paper]

9. Patrick Y. Wu. "Large Language Models Can Be a Viable Substitute for Expert Political Surveys When a Shock Disrupts Traditional Measurement Approaches." 2026. *Proceedings of the 41st ACM/SIGAPP Symposium on Applied Computing*. [Paper]

8. Venkata Dhanush Kikkisetti, Suneela Maddineni, Patrick Y. Wu, and Nathalie Japkowicz. 2025. "Emergent Racist Terminology Discovery." *2025 IEEE International Conference on Data Mining Workshops (ICDMW)*. [Paper]

7. Hauke Licht, Rupak Sarkar, Patrick Y. Wu, Pranav Goel, Niklas Stoehr, Elliott Ash, and Alexander Miserlis Hoyle. 2025. "Measuring Scalar Constructs in Social Science with LLMs." *Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. [Paper]

6. Patrick Y. Wu. 2025. "Using Semantically Unrelated and Opposite Terms for In-Context Learning: A Case Study in Identifying Political Aversion in Tweets." *Proceedings of the 17th ACM Web Science Conference 2025 (Websci'25)*. [Paper]

5. Rupak Sarkar, Patrick Y. Wu, Kristina Miler, Alexander Miserlis Hoyle, and Philip Resnik. 2025. "PairScale: Analyzing Attitude Change with Pairwise Comparisons." *Findings of the Association for Computational Linguistics: NAACL 2025*. [Paper]

4. Patrick Y. Wu, 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." *2024 IEEE International Conference on Big Data (BigData)*. [Paper]

3. Nicole Wu* and Patrick Y. Wu*. 2024. "Surveying the Impact of Generative Artificial Intelligence on Political Science Education." *PS: Political Science & Politics*. (* denotes equal contribution) [Paper]

2. Patrick Y. Wu, Richard Bonneau, Joshua A. Tucker, and Jonathan Nagler. 2022. "Dictionary-Assisted Supervised Contrastive Learning." *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. [Paper]

1. Patrick Y. Wu and Walter R. Mebane, Jr. 2022. "MARMOT: A Deep Learning Framework for Constructing Multimodal Representations for Vision-and-Language Tasks." *Computational Communication Research* 4(1): 275-332. [Paper]

Book Chapters

1. Patrick Y. Wu. 2026. "Computational Social Scientists Need to Start Caring About the Competitiveness of the AI Market." To appear in *Notes on the Future of Quantitative Social Science in an Age of Artificial Intelligence*, CRC Press.

Preprints

5. Patrick Y. Wu, Jonathan Nagler, Joshua A. Tucker, and Solomon Messing. 2023. "Large Language Models Can Be Used to Estimate the Latent Positions of Politicians." [Preprint]

4. Walter R. Mebane, Jr., Diogo Ferrari, Kevin McAlister, and Patrick Y. Wu. 2022. "Measuring Election Frauds." [Preprint]

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." [Preprint]

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." [Preprint]

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." [Preprint]

Invited Presentations

- NLP+CSS Workshop, Panelist (Planned July 2026)
- Department of Politics and Public Administration at the University of Hong Kong (May 2026)
- "Notes on the Future of Quantitative Social Science in an Age of Artificial Intelligence" Workshop at the University of Toronto (May 2026)
- Computer Science Seminar Series, Department of Computer Science at Virginia Tech (2025)
- AU-ASA at American University (2025)
- EvalTech (Keynote Speaker), Inter-American Development Bank (2025)
- QTM Speaker Series, Department of Quantitative Theory and Methods at Emory University (2024)
- Computational Social Science Seminar, Meta (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, Fall 2025)
- 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 Titiunik 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

- Exploring AI Through Programming and Real-World Applications (Spring 2026)
- Introduction to Computer Science I, American University (Fall 2025)
- Object-Oriented Programming, American University (cross-listed with graduate) (Winter 2025, Spring 2026)

- Natural Language Processing and Text as Data, American University (cross-listed with graduate) (Fall 2024, Fall 2025)
- 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)

Advising and Student Collaborators

Undergraduate Students (American University): Kylianne Broughton, Alex Dillon, Stephen Zhong

Graduate Students (American University): Ali Amini, Eric Baran, Chen Hsu, Dhanush Kikkisetti, Yen Jo Lee, Yi-Hung Lu, Suneela Maddineni, Cristina Perez, Nguyen Hoang Pham, Michael Vasquez

Service

- Editorial Board, *Social Science Computer Review* (2025–)
- Organizer, NLP4Democracy Workshop at COLM (2025)
- Coordinator, Interdisciplinary Seminar in Social Science Methodology, University of Michigan (2019–2021)
- Coordinator, Statistical Learning Workshop, University of Michigan (2018–2019)
- Member, American University's AI Steering Committee (2025–)
- **Grant Reviewer**: National Science Foundation (NSF), Swedish National Science Foundation (SNSF)
- **Reviewer / Program Committee**: ACL Rolling Review (ARR), ACL Student Research Workshop, ACM FAccT, *American Journal of Political Science*, *Computational Communication Research*, Conference on Language Modeling (COLM), ECML PKDD, *Harvard Data Science Review*, *Information Fusion*, *Journal of Health Communication*, *Journal of Law & Empirical Analysis*, *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*, ACM WebSci, Workshop on Images in Online Political Communication (PhoMemes)

Awards

- Mellon Competition, $1,900, American University (2024)
- MICDE Fellowship, $4,000, Michigan Institute for Computational Discovery and Engineering (2020)
- Best Poster and 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

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

Other Experience

- University of Chicago Law School, Chief RA for Judge Richard Posner and Professor William Landes (2014–2015)