Anmol Panda, Ph.D. Candidate (ABD)

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Education

Aug 2020 – Present
Ph.D., Information Science, University of Michigan, Ann Arbor, MI (Expected Graduation: May 2026)
GPA: 3.89/4.0
Dissertation Title: *Digital Media, Race, and Political Behavior: Examining Asian American Attitudes and Voting Behavior in the Trump Era*
Advisor: Libby Hemphill.
Committee: Joyojeet Pal, Matthew Bui, Ted Brader.
Relevant Coursework: Data Mining, Causal Inference, Natural Language Processing, Categorical Data Analysis, Survey Methods, Multilevel Modelling, Public Opinion Seminar, American Political Development.

Aug 2012 – May 2016
B.E. (Hons.), Computer Science, Birla Institute of Technology and Science - Pilani, Goa, India
GPA: 8.1/10.0
Undergraduate Thesis: *A comparative study of GPU verify and GKLEE.*
Advisors: Philip Rummer (Uppsala University) & Neena Goveas (BITS Pilani).
Relevant Coursework: Operating Systems, Data Structures, Design and Analysis Of Algorithms, Networking, Databases, Real Time Systems.

Aug 2015 – Jan 2016
Exchange Studies, Uppsala University, Uppsala, Sweden
Relevant Coursework: Combinatorial Optimization, Graph Theory, Human Computer Interaction.

Research Experience

May 2022 – Aug 2022
Consultant, The World Bank, Washington, D.C., USA.
Consulted for the Water and Firms team, analyzing the Bank's gold-standard Enterprise Surveys of over 173,000 firms from more than 150 countries.
Employed data science and statistical methods in Python and Stata to study factors explaining firm-level water shortages, their global geographical variation, and the impact of firm demographics on these experiences.

Jun 2018 – Aug 2020
Research Fellow, Microsoft Research India, Bangalore, India.
Co-led a team to compile and publish a dataset of 33,000 Indian and 9,600 US politicians on Twitter using a combination of machine learning and human annotation.
Analyzed election campaigns, extreme speech, leader centrality, issue preferences of political parties, and trending topics on Twitter.
Published findings in peer-reviewed conferences (CSCW, Social Media and Society) and mainstream media.

Aug 2016 – Jun 2018
Senior Project Assistant, Indian Institute of Technology, Delhi, New Delhi, India.
Developed compiler optimizations in software packet processing pipelines by leveraging memory-level parallelism, achieving up to a 280% improvement in packet throughput.

May 2015 – Aug 2015
Mitacs Globalink Research Intern, University of Northern British Columbia (UNBC), Prince George, BC, Canada.
Tested and validated four GPS-free localization algorithms for the development of autonomous farm-seeding robots.

Teaching Experience

Aug 2021 – Dec 2024 — **Graduate Student Instructor**, University of Michigan School of Information, Ann Arbor, MI.
Served as a GSI for Data Mining, Deep Learning, and Python Programming in both in-person and online formats.
Taught bi-weekly tutorial sessions for Data Mining (Fall 2021 & Fall 2024) to groups of 25-30 students, leading labs in Python and Jupyter on topics including machine learning, NLP, time series analysis, and deep learning models.
Provided support for Python Programming through office hours, proctoring, and grading.

May 2023 – Jul 2025 — **Teaching Assistant**, ICPSR Summer Program, Ann Arbor, MI.
Supported five different courses over three summer terms at the Inter-university Consortium for Political and Social Research (ICPSR).
Provided classroom assistance, ran office hours, and supported student projects for courses in Data Science and Text Analysis (2023), Data Visualization (2024), Bayesian Models (2024), Intermediate Mathematics (2025), and Network Science (2025).

Aug 2014 – May 2015 — **Instructor**, Center for Technical Education, BITS Pilani, Goa, India.
As part of a student-run organization, instructed fellow undergraduates to prepare them with practical job market skills.
Taught full courses on Object-Oriented Programming and Application Programming in C# in consecutive semesters.

Research Publications

Journal Articles

1. Dhillon, P. S., Panda, A., & Hemphill, L. (2025). How digital paywalls shape news coverage. *PNAS nexus*, *4*(1), pgae511.
2. Hemphill, L., Schöpke-Gonzalez, A., & Panda, A. (2022). Comparative sensitivity of social media data and their acceptable use in research. *Scientific Data*, *9*(1), 643.
3. Pal, J., & Panda, A. (2019). Twitter in the 2019 indian general elections: Trends of use across states and parties. *Economic and Political Weekly*, *54*(51), 1–17.

Conference Proceedings

1. Akbar, S. Z., Panda, A., Kukreti, D., Meena, A., & Pal, J. (2021). Misinformation as a window into prejudice: Covid-19 and the information environment in india. (Vol. 4, pp. 1–28). ACM New York, NY, USA.
2. Bozarth, L., Panda, A., Budak, C., & Pal, J. (2020). From greetings to corruption: Politicians, political parties, and tweeting in india. In *Proceedings of the 2020 international conference on information and communication technologies and development* (pp. 1–13).
3. Panda, A., Chakraborty, S., Raval, N., Zhang, H., Mohapatra, M., Akbar, S. Z., & Pal, J. (2020). Affording extremes: Incivility, social media and democracy in the indian context. In *Proceedings of the 2020 international conference on information and communication technologies and development* (pp. 1–12).
4. Panda, A., Gonawela, A., Acharyya, S., Mishra, D., Mohapatra, M., Chandrasekaran, R., & Pal, J. (2020). Nivaduck-a scalable pipeline to build a database of political twitter handles for india and the united states. In *International conference on social media and society* (pp. 200–209).

5. Panda, A., Kommiya Mothilal, R., Choudhury, M., Bali, K., & Pal, J. (2020). Topical focus of political campaigns and its impact: Findings from politicians' hashtag use during the 2019 indian elections. (Vol. 4, pp. 1–14). ACM New York, NY, USA.

Books and Chapters

1. Akbar, S. Z., Panda, A., & Pal, J. (2024). Political hazard: Misinformation in the 2019 indian general election campaign. In *Political campaigning in digital india* (pp. 133–151). Routledge.

Other Publications

1. Akbar, S. Z., Sharma, A., Mishra, D., Mothilal, R. K., Negi, H., Nishal, S., … Pal, J. (2022). Devotees on an astroturf: Media, politics, and outrage in the suicide of a popular filmstar.
2. Arya, A., De, S., Mishra, D., Shekhawat, G., Sharma, A., Panda, A., … Grover, R., et al. (2022). Dismiss: Database of indian social media influencers on twitter.
3. De, S., Panda, A., & Pal, J. (2022). Note: Picking sides: The influencer-driven# hijabban discourse on twitter.
4. Panda, A., Siddarth, D., & Pal, J. (2020). Covid, blm, and the polarization of us politicians on twitter.
5. Rajadesingan, A., Panda, A., & Pal, J. (2020). Leader or party? personalization in twitter political campaigns during the 2019 indian elections.
6. Brahmakshatriya, A., Kedia, P., McKee, D. P., Garg, D., Lal, A., Rastogi, A., … Bhatu, P. (2019). Confllvm: A compiler for enforcing data confidentiality in low-level code.
7. Pal, J., Meena, A., Charles, D. D., & Panda, A. (2019). The use of social media.
8. Pal, J., Panda, A., & Lalani, F. (2019). How# bjp fused with# strongindia in# 2019.
9. Panda, A., Rümmer, P., & Goveas, N. (2016). A comparative study of gpu verify and gklee. IEEE.

Current Projects

Generative AI + Data Curation

Funded by an **IMLS grant**, this project explores leveraging generative AI to create metadata for datasets on large archives. We use variable descriptions to produce knowledge graphs to improve data curation and search. The framework is tested using **GPT models** on Azure with datasets from the **ICPSR data archive**, aiming to mitigate the cost of manual metadata generation and enhance search utility.

Social Media and Political Attitudes

For my **dissertation**, I am studying the effect of social media on determinants of political support (e.g., racial resentment, attitudes on immigration) with a focus on **Asian American communities**. I have developed a unique survey instrument which is currently in the field; data is expected for analysis in Fall 2025.

Framing in Coordinated Campaigns

This project analyzes narrative and theme-based frames in networked publics on Twitter using a dataset from UMass Amherst. We are using **RoBERTa models** to classify tweets coded for frames such as media criticism and allegations of bias. This is a collaboration with Ceren Budak, Matt Bui, Zainab Akbar, and Julia Mendelsohn.

Completed Projects

Causal Effects of Digital Paywalls	Analyzed the effect of digital paywalls on US newspaper content using data from 17 local newspapers and the Census Bureau. Found paywalls decrease local news, especially in larger cities. Used a BERT-based model for text analysis and a staggered difference-in-difference model for causal inference, validated with synthetic controls.
Social Media Archive (SOMAR)	Built an archive of over 70K US and 60K Indian politician and influencer tweets hosted at ICPSR. Analyzed election campaigns, hashtag use, and misinformation. Published the dataset and collection pipeline, *NivaDuck*, in the Social Media and Society conference proceedings.
Misinformation in COVID-19 Discourse	Analyzed 1,100+ fact-checked stories and 1.3M political tweets on COVID-19 misinformation in India. Identified a shift from health to culturally charged narratives targeting minorities, showing how misinformation amplified social prejudice and political polarization during crises.
Topic Modeling of US Congressional Tweets	Analyzed 310K tweets from 520 US Congress members on the COVID-19 pandemic and Black Lives Matter. Revealed partisan framing differences, with Democrats focusing on public health and police brutality, and Republicans on economic impacts and law enforcement.
Election Campaigns in India	Conducted a large-scale analysis of hashtag use by 7,300+ Indian politicians during the 2019 election. Found the ruling BJP focused on self-promotion while the opposition INC attacked opponents, providing insights into social media campaigning and narrative control.
NivaDuck Pipeline	Developed and deployed NivaDuck, a scalable machine learning pipeline to identify and database political Twitter handles in India and the US. The system curated lists of 18.5K Indian and 8K US politicians, achieving high precision and enabling advanced research on digital politics.
Extreme Speech on Twitter	Conducted a mixed-methods study of political incivility in India. Found politicians receive high engagement for extreme speech with minimal penalty, while citizens risk prosecution for similar behavior, highlighting structural asymmetries in free speech online.

Skills

Research Expertise	Data Science, Causal Inference, Machine Learning, Natural Language Processing, Statistical Analysis, Survey Research, Social Media Data, Computational Social Science, Public Opinion Analysis, Race and Ethnic Politics, ICTD.
Languages & Frameworks	Python, Stata, R, C, Java, JavaScript, SQL, Bash, Scikit-Learn, TensorFlow, Keras, Tomotopy.
Teaching Areas	Data Science, Data Mining, Deep Learning, Object-Oriented Programming, Effective Public Speaking.
Soft Skills	Leadership, Event Organization, Public Speaking, Community Service.

Service

Aug 2025 – Present	**Doctoral Student Representative**, Dean's Advisory Board, Ann Arbor, MI. Serving on the inaugural UMSI Dean's Executive Student Advisory Board, representing doctoral students. The board provides the dean with student insights on key school initiatives and emerging issues.
Aug 2023 – Present	**Elected Member**, Doctoral Student Organization (SI-DSO), Ann Arbor, MI. Serving a third consecutive term, acting as a bridge between doctoral students and program staff. I help address student concerns and organize recreational and networking events to build community.
Aug 2023 – Apr 2025	**Student Coordinator**, University of Michigan School of Information, Ann Arbor, MI. Organized faculty speaker sessions at UMSI and coordinated with the Student Life office to arrange three field visits to local museums in the Detroit area.
Aug 2013 – May 2015	**Volunteer Instructor**, Abhigyan, BITS Pilani, Goa, India. Taught mathematics for four consecutive terms to low-income workers from the student dining halls who had previously left school.

Honors and Awards

Awards and Achievements

2015	**Erasmus Mundus Scholarship**, for Exchange Studies at Uppsala University, Sweden.
	Mitacs Globalink Research Internship, University of Northern British Columbia, Canada.
2009	**Best Student**, St. Francis D'Assisi High School, Mumbai, India.
	Student Council President, St. Francis D'Assisi High School, Mumbai, India.

References

Available on Request