SACHITA NISHAL

nishalsach nishalsach.github.io nishal@u.northwestern.edu

RESEARCH INTERESTS

human-computer interaction, artificial intelligence, natural language processing, machine learning

EDUCATION

Northwestern University, Evanston, IL Sep '20 - Present
Ph.D., Computer Science and Communication Studies (Joint Program) *GPA : 3.82 / 4*
Advisor: Dr. Nick Diakopoulos

Birla Institute of Technology and Science (BITS) Pilani, India Aug '16 - Present
Bachelor of Engineering (Honours), Computer Science *GPA : 8.19 / 10*
Thesis Advisor: Dr. Luís Amaral

RESEARCH EXPERIENCE

Computational Journalism Lab, Northwestern University Sep '20 - Present
Graduate Student Researcher (Advisor: Dr. Nick Diakopoulos)

- Designing end-to-end information retrieval systems to help science/technology journalists discover, understand and report on novel scientific research
- Leveraged natural language processing, machine learning, and UX design to create an interactive user-interface to filter and rank newsworthy scientific articles
- Conducted user-studies of the UI with practicing journalists for qualitative analysis
- Mentored an undergraduate student on different qualitative and quantitative parts of this project

Microsoft Research, India May '20 - Aug '20
Research Intern (Advisor: Dr. Joyojeet Pal))

- Investigated the Twitter interactions of politicians with popular celebrities, to study partisanship and agenda-setting in the Indian electoral context
- Created, validated, and documented datasets of politician and celebrity Twitter activity
- Topic-modelled tweets and designed network models of Twitter interactions to quantitatively characterize politician-celebrity relationships

Amaral Lab, Northwestern University July '19 - Dec '19
Research Intern (Advisor: Dr. Luís Amaral)

- Studied the relationship between novelty in American films, as expressed via their use of cinematic tropes, and the critical and commercial success they receive
- Created and documented datasets using TV Tropes, and modelled bipartite networks to qualify relationships between trope co-occurrence, critical reception, and cultural significance

Indian Institute of Science, Bangalore, India Dec '18 - May '19
Research Intern (Advisor: Dr. Rajiv Kumar Chaturvedi)

- Designed visualisations from time-series datasets and models of climate indicators, for use in the state of Goa's official Climate Change Action Plan

TECHNICAL SKILLS

Research Methods: Experiment Design, Machine Learning, Deep Learning, Natural Language Processing, Interview Studies, Network Analysis, Survey Design, Qualitative Content Analysis, Causal Inference
Programming Languages: Python, R, SQL, HTML/CSS, Java, C/C++
Libraries/Tools: PyTorch, scikit-learn, spaCy, HuggingFace Transformers, nltk,

PUBLICATIONS

Nishal, S. and Diakopoulos, N. 2022. From Crowd Ratings to Predictive Models of Newsworthiness to Support Science Journalism. *Proceedings of the ACM on Human-Computer Interaction, Vol. 6, CSCW2, Article 441.* [**PDF**]

Mothilal, R., Mishra, D., **Nishal, S.**, Lalani, F., and Pal, J. (2022). Voting with the Stars: Analyzing Partisan Engagement between Celebrities and Politicians in India. *Proceedings of the ACM on Human-Computer Interaction, Vol. 6, CSCW1, Article 134.* [**PDF**]

Arya, A. De, S., Mishra, D., Shekhawat, G., Sharma, A., Panda, A., Lalani, F., Singh, P., Mothilal, R., Grover, R., **Nishal, S.**, Dash, S., Rashid, S., Akbar, S., Pal, J., (2022). DISMISS: Database of Indian Social Media Influencers (Snowballed Sequentially) on Twitter. *Proceedings of the International AAAI Conference on Web and Social Media, 16(1).* [**PDF**]

Akbar, S.Z., Sharma, A., Mishra, D., Mothilal, R.K., Negi, H., **Nishal, S.**, Panda, A. and Pal, J. (2022). Devotees on an Astroturf: Media, Politics, and Outrage in the Suicide of a Popular FilmStar. *ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS)* [**PDF**]

NON-ARCHIVAL PUBLICATIONS AND POSTERS

Nishal, S. and Diakopoulos, N. (2022). "Designing Predictive Models of Newsworthiness to Support Science Journalism." Presented at the Lambert Conference on the Future of Human Computer Interaction + Design.

Nishal, S. and Amaral, L. A. N. (2022). "Measuring the Impact of Trope-based Novelty on Cinematic Success" Presented at the International Conference on Computational Social Science (IC2S2).

Nishal, S. and Diakopoulos, N. (2022). "AI-Driven Lead Recommender Systems for Science Journalists." Presented at the Computation+Journalism Symposium.

SERVICE

Reviewer for CSCW (2022)
Reviewer for NordiCHI (2022)
Reviewer for CHI (2022)
Technology and Social Behavior (TSB) New Student Orientation Panel (2022)
TSB Prospective Student Weekend Volunteer (2021, 2022)
TSB Incoming Student Mentorship Program (2021, 2022)
Editor and Student Mentor for The BITS R&D Blog (2018-2020)

INVITED TALKS

Submitting and Presenting at Academic Conferences (NU School of Communication, 2022)
Exploring the Structure of Trope Co-Occurrence Networks in American Films (BITS Goa, 2020)
Pathways to Research for Undergraduate Students (BITS Goa, 2020)

**Text in violet indicates hyperlink*