Assistant Professor
The Information School
University of Washington, Seattle, WA

tmitra@uw.edu | faculty.washington.edu/tmitra/

#### RESEARCH INTERESTS

My research combines computational techniques and social science principles to study complex social processes underlying human behavior in large-scale online social systems. My current research focus is on understanding and designing defenses against problematic information in online social platforms and the algorithms driving them.

**Topics:** Social Computing, Computational Social Science, Misinformation & Deception, Credibility & Trust in News & Information, Responsibility in AI, Algorithmic Audits, Designing Human+AI Hybrid Information Systems.

#### **EDUCATION**

GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, GA USA

Ph.D. in Computer Science

Aug 2011 – Aug 2017

Thesis Topic: Understanding Social Media Credibility

Committee: Eric Gilbert, Amy Bruckman, James Pennebaker, Scott Counts

TEXAS A&M UNIVERSITY, College Station, TX USA

M.S. Computer Science

Aug 2009 - July 2011

Masters Thesis: Cooperative Minimalistic Approach to Robotic Aggression

## **EMPLOYMENT**

Fall 2020 onwards	University of Washington, Seattle, WA	
	Assistant Professor, The Information School	
	Adjunct Asst. Prof., School of Computer Science & Engineering (CSE)	
	Affiliate Faculty, Center for Informed Public (CIP)	
	Co-Founder, Responsible AI Systems and Experiences (RAISE)	
2017 – Summer 2020	Virginia Polytechnic Institute & State University (Virginia Tech)	
	Assistant Professor, Department of Computer Science	
	Member, Discovery Analytics Center (DAC)	
	Member, Center for Human-Computer Interaction (CHCI)	
	Member, Center for Peace Studies and Violence Prevention (CPSVP)	
Summer 2016	Research Intern, IBM Research, Cambridge, MA USA	
Summer 2015	Research Intern, Microsoft Research, Redmond, WA USA	
Summer 2013	Research Intern, IBM Research, Cambridge, MA USA	
SUMMER 2010	Software Engineering Intern, Schlumberger Ltd., Houston, TX USA	
Summer 2005	Research Intern, Center for Development of Advanced Computing, Indi	
2005 – 2009	Software Engineer, Alcoa Inc., Pittsburgh, PA USA	

#### **PUBLICATIONS**

*Note*: \* indicates a student or postdoc advised by Tanushree Mitra.

For all papers co-authored with my post-doc and PhD students (both the ones at UW iSchool and at Virginia Tech), my authorship position indicates my PI status on the project.

Refer to footnote <sup>1 2</sup> for publication conventions in computing disciplines.

REFERRED CONFERENCE AND JOURNAL PAPERS (PEER REVIEWED)

## 2023 papers

- [48] Shruti Phadke\*, and **Tanushree Mitra**. "Characterizing Political Campaigning with Lexical Mutants on Indian Social Media" In *Proc. ICWSM* 2023: 17th International AAAI Conference on Web and Social Media.
- [47] Kristen Engel\*, Shruti Phadke\*, and **Tanushree Mitra**. "Learning from the Ex-Believers: Individuals' Journeys In and Out of Conspiracy Theories Online." In *Proc. ACM Human Computer Interaction (CSCW 2023)*.
- [46] Prerna Juneja\*, Md Momen Bhuiyan\*, and **Tanushree Mitra**. "Assessing enactment of content regulation policies: A post hoc crowd-sourced audit of election misinformation on YouTube." In *Proc. CHI 2023: ACM Conference on Human Factors in Computing Systems* (CHI 2023). [27.6% acceptance].
- [45] Md Momen Bhuiyan\*, Sang Won Lee, Nitesh Goyal, and **Tanushree Mitra**. "NewsComp: Facilitating Diverse News Reading through Comparative Annotation." In *Proc. CHI* 2023: ACM Conference on Human Factors in Computing Systems (CHI 2023). [27.6% acceptance].
- [44] Brian Keith Norambuena\*, **Tanushree Mitra**, and Chris North. "Mixed Multi-Model Semantic Interaction for Graph-based Narrative Visualization" In *Proc. IUI 2023: 28th Annual Conference on Intelligent User Interfaces (IUI 2023).* [24% acceptance].
- [43] Brian Keith Norambuena\*, **Tanushree Mitra**, and Chris North. "A Survey on Event-based News Narrative Extraction" In *ACM Journal of Computing Surveys*.

#### 2022 papers

- [42] Prerna Juneja\* and **Tanushree Mitra**. "Human and Technological Infrastructures of Fact-checking" In *Proc. ACM Human Computer Interaction (CSCW 2022)*. **Best Paper Hon'** *Mention (Top 3% of CSCW papers) & Impact Recognition awards*.
- [41] Brian Keith Norambuena\*, **Tanushree Mitra**, and Chris North. "Design guidelines for narrative maps in sensemaking tasks." In *Journal of Information Visualization* (2022).
- [40] Shruti Phadke\*, Mattia Samory, and **Tanushree Mitra**. "Pathways through Conspiracy: The Evolution of Conspiracy Radicalization through Engagement in Online Conspiracy Discussions" In *Proc. ICWSM* 2022: 16th International AAAI Conference on Web and Social Media. Best Paper (Top paper among all papers accepted at ICWSM 2022). [22% acceptance].

<sup>&</sup>lt;sup>1</sup>Leading conferences in computer science (e.g., CHI, CSCW, ICWSM) are highly selective, undergo rigorous peerreview involving 3-4 expert referees, and intended for archival papers only. These conferences often exceed journals in their selectivity, visibility, and impact. Please see http://portal.acm.org/citation.cfm?id=1743546.1743569 for details. Wherever available, the acceptance rate is provided following each citation. In the past few years, several CS conferences have also moved to a hybrid model with a journal component (e.g., CSCW); however, many of them are too new to have accrued bibliometric indicators such as impact factors.

<sup>&</sup>lt;sup>2</sup>Student authors are typically listed first and senior authors are listed last in reverse order of contribution, with advisor or PI as last author.

[39] Md Momen Bhuiyan\*, Carlos Isaza, **Tanushree Mitra**, and Sang Won Lee. "OtherTube: Facilitating Content Discovery and Reflection By Exchanging YouTube Recommendations With Strangers" In *Proc. CHI* 2022: ACM Conference on Human Factors in Computing Systems (CHI 2022). Best Paper Honorable Mention (Top 5% of ACM CSCW papers). Accepted in review round 1, bypassing revise and resubmit. [12.5% acceptance].

[38] Zhen Guo, Jin-Hee Cho, Chen Ray, Srijan Sengupta, Michin Hong, and **Tanushree Mitra**. "SAFER: Social Capital-Based Friend Recommendation to Defend against Phishing Attacks" In *Proc. ICWSM* 2022: 16th International AAAI Conference on Web and Social Media [22% acceptance].

## 2021 papers

- [37] Brian Keith Norambuena\*, **Tanushree Mitra**, and Chris North. "Design guidelines for narrative maps in sensemaking tasks" In *Journal of Information Visualization*, 2021.
- [36] Brian Keith Norambuena\*, **Tanushree Mitra**, and Chris North. "Narrative Sensemaking: Strategies for Narrative Maps Construction" In *IEEE Visualization Conference (VIS)*, 2021. [29% acceptance].
- [35] Shruti Phadke\*, Mattia Samory, and **Tanushree Mitra**. "Characterizing Social Imaginaries and Self-Disclosures of Dissonance in Online Conspiracy Discussion Communities." In *Proc. ACM Human Computer Interaction (CSCW 2021)*. Best Paper Honorable Mention (Top 5% of ACM CSCW papers). Accepted in review round 1, bypassing revise and resubmit (top 9%).
- [34] Md Momen Bhuiyan\*, Michael Horning, Sang Lee, and **Tanushree Mitra**. "Designing Transparency Cues in Online News Platforms to Promote Trust: Journalists' & Consumers' Perspectives." In *Proc. ACM Human Computer Interaction (CSCW 2021)*. [32% acceptance].
- [33] Md Momen Bhuiyan\*, Michael Horning, Sang Lee, and **Tanushree Mitra**. "NudgeCred: Supporting News Credibility Assessment on Social Media Through Nudges." In *Proc. ACM Human Computer Interaction (CSCW 2021)*. [32% acceptance]
- [32] Shruti Phadke\* and **Tanushree Mitra**. "Educators, Solicitors, Flamers, Motivators, Sympathizers: Characterizing Roles in Online Extremist Movements." In *Proc. ACM Human Computer Interaction (CSCW 2021)*. [32% acceptance].
- [31] Prerna Juneja\* and **Tanushree Mitra**. "Auditing E-Commerce Platforms for Algorithmically Curated Vaccine Misinformation." In *Proc. CHI* 2021: ACM Conference on Human Factors in Computing Systems. [26.3% acceptance]. Best Paper Honorable Mention (Top 5% of ACM CHI papers).

## 2020 papers

- [30] Eslam Hussein\*, Prerna Juneja\* and **Tanushree Mitra**. "Measuring Misinformation in Video Search Platforms: An Audit Study on YouTube." In *Proc. ACM Human Computer Interaction 4 (CSCW 2020)*. [21.9% acceptance].
- [29] Shruti Phadke\*, Mattia Samory\* and **Tanushree Mitra**. "What Makes People Join Conspiracy Communities?: Role of Social Factors in Conspiracy Engagement." In *Proc. ACM on Human-Computer Interaction 4 (CSCW 2020)*. **Best Paper Honorable Mention (Top 5% of ACM CSCW papers)**. Accepted in review round 1, bypassing revise and resubmit (top 7.9%).
- [28] Brian Keith Norambuena\* and **Tanushree Mitra**. "Narrative Maps: An Algorithmic Approach to Represent and Extract Information Narratives" In *Proc. ACM on Human-Computer Interaction 4 (CSCW 2020)*. Accepted in review round 1, bypassing revise and resubmit (top 9%).

[27] James Hawdon, Shyam Ranganathan, Shane Bookhultz and **Tanushree Mitra**. "Social Media Use, Political Polarization, and Social Capital: Is Social Media Tearing the US Apart?" In *International Conference on Human-Computer Interaction*, 2020.

- [26] Mattia Samory\*, Vartan Kesiz Abnousi\* and **Tanushree Mitra**. "Characterizing the Social Media News Sphere through User Co-Sharing Practices." In *Proc. ICWSM* 2020: 14th International AAAI Conference on Web and Social Media. [16.9% acceptance].
- [25] Shruti Phadke\* and **Tanushree Mitra**. "Many Faced Hate: A Cross Platform Study of Content Framing and Information Sharing by Online Hate Groups." In *Proc. CHI 2020: ACM Conference on Human Factors in Computing Systems*. [24.3% acceptance].
- [24] Prerna Juneja\*, Deepika Ramasubramanian\* and **Tanushree Mitra**. "Through the Looking Glass: Study of Transparency in Reddit's Moderation Practices." In *Proc. GROUP* 2020: ACM Conference on Supporting Group Work. [31% acceptance].
- [23] Md Momen Bhuiyan\*, Amy X Zhang, Connie Moon Sehat, and **Tanushree Mitra**. "Investigating Differences in Crowdsourced News Credibility Assessment: Raters, Tasks, and Expert Criteria" In *PACMHCI.* 4, Computer-Supported Cooperative Work (CSCW 2020). [35.8% acceptance].
- [22] Zhen Guo, Jin-Hee Cho, Ing-Ray Chen, Srijan Sengupta, Michin Hong, and **Tanushree Mitra**. "Online Social Deception and Its Countermeasures: A Survey." In *IEEE Access*, *Volume 9* (2020).

## 2019 and before

- [21] Mattia Samory\* and **Tanushree Mitra**. "SENPAI: Supporting Exploratory Text Analysis through Semantic & Syntactic Pattern Inspection." In *Proc. ICWSM* 2019: 13th International AAAI Conference on Web and Social Media. [17% acceptance].
- [20] Mattia Samory\* and **Tanushree Mitra**. "The Government Spies Using Our Webcams: The Language of Conspiracy Theories in Online Discussions." In *Proc. CSCW 2018: Proceedings on Computer-Supported Cooperative Work and Social Computing*. [26.1% acceptance].
- [19] Mattia Samory\* and **Tanushree Mitra**. "Conspiracies Online: User discussions in a Conspiracy Community Following Dramatic Events." In *Proc. ICWSM 2018: 12th International AAAI Conference on Web and Social Media*. [16% acceptance].
- [18] **Tanushree Mitra**, Graham Wright\* and Eric Gilbert. "Credibility and the Dynamics of Collective Attention" In *Proc. CSCW 2018: Proceedings of the ACM on Human-Computer Interaction*. [26.1% acceptance].
- [17] **Tanushree Mitra**, Michael Muller, Sadat Shami, Abbas Golestani and Mikhil Masli. "Spread of Employee Engagement in a Large Organizational Network: A Longitudinal Analysis" In *Proc. CSCW 2018: Proceedings of the ACM on Human-Computer Interaction*. [26.1% acceptance].
- [16] Michael Muller, **Tanushree Mitra**, and Werner Geyer. Growth in Social Network Connectedness among Different Roles in Organizational Crowdfunding In *Proc. GROUP* 2018: ACM Conference on Supporting Group Work Group 2018. [28% acceptance].
- [15] **Tanushree Mitra**, Graham Wright\* and Eric Gilbert. "A Parsimonious Language Model of Social Media Credibility Across Disparate Events" In *Proc. CSCW 2017: 20th ACM Conference on Computer-Supported Cooperative Work and Social Computing*. [34% acceptance].
- [14] **Tanushree Mitra**, Scott Counts and James W. Pennebaker. "Understanding Anti-Vaccination Attitudes in Social Media." In *Proc. ICWSM* 2016: 10th International AAAI Conference on Weblogs and Social Media. [16% acceptance].

[13] Stevie Chancellor, **Tanushree Mitra**, and Munmun De Choudhury. "Recovery amid proanorexia: Analysis of recovery in social media." In *Proc. CHI 2016: 33rd Annual ACM Conference on Human Factors in Computing Systems.* [23% acceptance].

- [12] **Tanushree Mitra**, and Eric Gilbert. "CREDBANK: A Large-scale Social Media Corpus With Associated Credibility Annotations." In *Proc. ICWSM* 2015: Ninth International AAAI Conference on Web and Social Media [19% acceptance].
- Tanushree Mitra, C.J. Hutto, and Eric Gilbert. "Comparing Person-and Process-centric Strategies for Obtaining Quality Data on Amazon Mechanical Turk." In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, CHI 2015.* Best Paper Honorable Mention (Top 5%).
- [10] Soni Sandeep, **Tanushree Mitra**, Eric Gilbert and, Jacob Eisenstein. "Modeling Factuality Judgments in Social Media Text." In *Proceedings of the Association for Computational Linguistics* ACL 2014.
- [9] **Tanushree Mitra**, and Eric Gilbert. "The language that gets people to give: Phrases that predict success on Kickstarter." In *Proc. CSCW* 2014: 17th ACM conference on Computer Supported Cooperative Work and social computing. [27% acceptance].
- [8] **Tanushree Mitra**, and Eric Gilbert. "Have You Heard?: How Gossip Flows Through Workplace Email." In *Proc. ICWSM* 2012: Sixth International AAAI Conference on Weblogs and Social Media [20% acceptance].
- [7] **Tanushree Mitra**, and Dylan A. Shell. "Cost, Precision, and Task Structure in Aggression-Based Arbitration for Minimalist Robot Cooperation." In *Proceedings of the International Conference on Simulation of Adaptive Behavior.* SAB 2012.

# Poster Papers (Peer Reviewed)

- [6] Brian Keith Norambuena\*, **Tanushree Mitra**, and Chris North. "Characterizing Social Movement Narratives in Online Communities: The 2021 Cuban Protests on Reddit." In *Computation* + *Journalism Symposium* (C+J 2022).
- [5] Brian Keith Norambuena\*, **Tanushree Mitra**, and Chris North. "Exploring the Information Landscape of News using Narrative Maps." In *Computation + Journalism Symposium* (C+J 2021).
- [4] Md Momen Bhuiyan\*, Amy X Zhang, Connie Moon Sehat, and **Tanushree Mitra**. "'Who' in the Crowdsourcing of News Credibility." In *Computation* + *Journalism Symposium* (C+*J* 2020).
- [3] Brian Keith Norambuena\*, Michael Horning, and **Tanushree Mitra**. "Evaluating the Inverted Pyramid Structure through Automatic 5W1H Extraction and Summarization." In *Computation + Journalism Symposium* (C+J 2020). Accepted for oral presentation. [17% acceptance].
- [2] Momen Bhuiyan\*, Kexin Zhang\*, Kelsey Vick, Michael Horning and **Tanushree Mitra**. "FeedReflect: A toolkit for engaging users in active reflection on Twitter" Extended Abstract of CSCW 2018.
- [1] Shruti Phadke\*, Jonathan Lloyd, James Hawdon and **Tanushree Mitra**. "Framing Hate with Hate Frames: Designing the Codebook." *Extended Abstract of CSCW 2018*.

## Workshops and Other Juried Publications

[W6] **Tanushree Mitra**. "Contestability in Large-Scale Interactive NLP Systems." – Invited participants at the Workshop of HCI+NLP Bridging Human–Computer Interaction and Natural Language Processing at the 16th Conference of the European Chapter of the Association for Computational Linguistics, EACL 2021.

- [W5] Shruti Phadke\*, Jessie Seiler\*, Tanushree Mitra, Kiran Garimella, Matthew Costello, James Hawdon. "Addressing Challenges and Opportunities in Online Extremism Research: An Interdisciplinary Perspective." Workshop Organizer at the 24th ACM Conference on Computer-Supported Cooperative Work and Social Computing, Extended Abstract of CSCW 2021.
- [W4] Emelia May Hughes\*, Renee Wang\*, Prerna Juneja\*, **Tanushree Mitra**, Amy Zhang. "Introducing Credibility Signals and Citations to YouTube." *Invited participants at the Information Credibility & Alternative Realities in Troubled Democracies Workshop at the 15th International Conference on Web and Social Media, ICWSM 2021.*
- [W3] Prerna Juneja\* and **Tanushree Mitra**. "Algorithmic nudge: Using XAI frameworks to design interventions." *Invited participants at the Operationalizing Human-centered Perspectives in Explainable AI Workshop at the 2021 ACM CHI Virtual Conference on Human Factors in Computing Systems, CHI 2021.*
- [W2] Prerna Juneja\* and **Tanushree Mitra**. "Investigating the impact of personalization on misinformation present in algorithmically curated content in YouTube." *Invited participants at the 3rd FAccTRec Workshop: Responsible Recommendation at the 14th ACM Conference on Recommender Systems*, RecSys 2021.
- [W1] **Tanushree Mitra**. "Contestability in Large-Scale Online Algorithmic Systems." *Invited* participants at the Contestability in Algorithmic Systems Workshop at the 22nd ACM Conference on Computer-Supported Cooperative Work and Social Computing, CSCW 2019.

#### **AWARDS AND HONORS**

# BEST PAPER AWARDS

- 2022 CSCW Conference Best Paper Honorable Mention (Top 3% of submission)
- 2022 CSCW Conference Impact Award
- 2022 AAAI ICWSM Conference Best Paper (Topmost among all submissions)
- 2021 ACM CHI Conference Best Paper Honorable Mention (Top 5% of submission)
- 2021 CSCW Conference Best Paper Honorable Mention (Top 5% of submission)
- 2020 CSCW Conference Best Paper Honorable Mention (Top 5% of submission)
- 2015 CHI Conference Best Paper Honorable Mention (Top 5% of submission)

#### Honors & Recognition

- Adamic-Glance Distinguished Young Researcher Award at ICWSM 2021
- 2021 Office of Naval Research (ONR) Young Investigator Program (YIP) award.
- 2021 Google Research Scholar Award
- 2020 Outstanding New Assistant Professor Award, Virginia Tech College of Engineering
- 2020 CSCW Conference Best Paper Honorable Mention (Top 5% of submission)
- 2020 Fact-Checking Innovation Initiative Award from Poynter Institute
- 2018 NSF-CRII Early Career Award
- 2018 ICTAS Junior Faculty Award
- 2016 IBM Ph.D. Fellowship Recipient
- Selected to attend the Consortium for the Science of Socio-Technical Systems (CSST), NSF funded workshop for promising junior investigators

2015	Foley Scholar Recipient, GVU center's highest award for student excellence in research
	contributions to computing
2015	ICWSM Student Travel Grant (\$350)
2014	ACL Travel Award for LTCSS workshop (\$600)
2014	Georgia Tech Research & Innovation Conference (GTRIC) Fellowship winner
2013	Georgia Tech Research & Innovation Conference (GTRIC) Fellowship winner
2012	Winner SAIC: Awarded by Science Applications International Corporation
2009-2010	Royce E. Wisenbaker '39 Graduate Fellowship, Texas A&M University
2002	1st position for academic performance in undergraduate studies.

#### **FUNDING**

#### **EXTERNAL GRANTS**

Total funds generated from external funders as PI or Co-PI: \$2,316,507 (2017-2023). Total funds generated from external funders as PI, Co-PI or Senior Personnel: \$4,200,416.

- PI: National Institute of Health (NIH) Auditing Social Media Algorithmic Pathways to Measure Prevalence of Online Misinformation Related to Opioid Misuse, 2023 2024, with Co-PI: Munmun De Chowdhary (Georgia Tech) and Patricia Cavazos-Rehg (Washington University, Saint Louis) Total: \$426,285. Personal share: \$245,535.
- 2022 <u>Sole PI</u>: Google Jigsaw funding: Dissonance Interventions to Reduce Conspiracies. 2022 2023, Total: \$160,000. *with PhD student: Shruti Phadke*.
- Senior Personnel: National Science Foundation (NSF #2137519): (Phase 2) NSF Convergence Accelerator Track F: Co-Designing for Trust: Reimagining Online Information Literacies with Underserved Communities, 2022 2024, Total: \$5,000,000. Personal Share: \$7,121.
- Senior Personnel: National Science Foundation (NSF Contract #49100421C0037): (Phase 2) NSF Convergence Accelerator Track F: Analysis and Response for Trust Tool (ARTT): Expert-Informed Resources for Individuals and Online Communities to Address Vaccine Hesitancy, 2022 2024, Total: \$1,133,909. Personal Share: \$14,241.
- 2022 Co-PI: The Public Interest Technology University Network (PIT-UN): The Puget Sound Clinic for Public Interest Technology at the University of Washington-Seattle, 2021 2024, Total: \$178,808. with PI: Nic Weber, Co-PI: Bill Howe.
- Sole PI: Office of Naval Research (ONR) Young Investigator Program (YIP): Influencing Communities and Narratives: New Techniques for Understanding Adversarial Influence Online, 2021 2024, Total: \$508,476. Personal Share: \$508,476.
- Sole PI: Google Research Scholar: Supporting Scalable Value-Sensitive Fact-Checking through Human-AI Intelligence, 2021 2022, Total: \$60,000. Personal Share: \$60,000.
- Senior Personnel: National Science Foundation (NSF #2137519): NSF Convergence Accelerator Track F: Co-Designing for Trust: Reimagining Online Information Literacies with Underserved Communities, 2021 2022, Total: \$750,000. Personal Share: \$6,517.
- 2020 PI: Fact-Checking Innovation Initiative from Poynter Institute: Auditing Social Media for Misinformation, 2020 2021, Total: \$99,707. Personal Share: \$54,707. with Co-PI: PesaCheck, a Code for Africa (CfA) fact-checking initiative).
- 2020 PI: DoD's Minerva Research Initiative: Understanding Chinese influence operations through the lens of social movement theory, 2020 2022, Total: \$399,200. Personal Share: \$245,366. with Co-PI: Gwyneth Sutherlin (National Defense University).

2019 PI: CKF Foundation: Promoting Tolerance and Civility in Online Discourse Through Re-designing Button Labels, 2020 - 2021, Total: \$156,042. Personal Share: \$135,923. with Co-PI: Tedesco (Virginia Tech).

- 2019 PI: National Science Foundation (NSF #1915755) EAGER: SaTC: Early-Stage Interdisciplinary Collaboration: Designing Trustworthy and Transparent Information Platforms (2019 2021), REU Supplements: \$16,000 (2019). with Co-PI: Horning (Virginia Tech), Total: \$299,966. Personal share: \$200,804.
- 2019 <u>Sole PI</u>: Facebook & SSRC's Social Media and Democracy Research Grants: Characterizing Mainstream and Nonmainstream Online News Sources in Social Media, 2019 2020, Total: \$49,572. Personal share: \$49,572.
- 2018 <u>Sole PI</u>: National Science Foundation (NSF #1755547) Early Career CRII: CHS: Empirical and Design Investigations to Combat Misleading Online News in Social Media, awarded \$174,831, 2019 2020, REU Supplements: \$16,000 (2019).

# Internal Grants (Total: \$187,515; Personal Share: \$165,515)

- Sole PI: CIP Innovation Fund. *Contestability as a Means to Interrogate Algorithms in Large-Scale Socio-Technical Systems.* Total: \$10,000.
- Sole PI: UW iSchool Innovation Fund. *Supporting machine-assisted crowd expert credibility assessment of search results.* Total: \$19,675.
- 2020 PI: UW iSchool Strategic Research Fund (SRF). Designing Systems to Signal Credibility. with Co-PI: Amy Zhang, UW-CSE. Total: \$15,000.
- 2019 Co-PI: Virginia Tech Institute for Society, Culture and Environment Award. *Source-Frame Congruence in US National Security Public Information Campaigns*. Total: \$30,000. Personal Share: \$8,000.
- Sole PI: Virginia Tech Center for Peace Studies and Violence Prevention Peace Building and Violence Prevention Program Award. *Investigating Hate-group Communications in Online Social Spaces*. Total: \$24,915. Personal Share: \$24,915.
- 2018 PI: Virginia Tech ICTAS Junior Faculty Award. *The Language of Online Extremism: Computational Models for Discovery and Analysis of Framing around Extremists' Narratives*. Total: \$80,000. (12/72 = 16.7% acceptance rate).
- 2018 PI: Virginia Tech ICTAS Data & Decisions grant. *Empirical and Design Investigation to Address Misleading Online News in Social Media*. Total: \$10,000.
- <u>PI</u>: Virginia Tech CHCI ICAT SEAD Mini-grant. *The Language of Online Extremism: Computational Models for Discovery and Analysis of Framing around Extremists' Narratives*. Total: \$3,000.
- 2018 <u>PI</u>: Virginia Tech CHCI ICAT SEAD Mini-grant. *FeedReflect: Designing socio-technical interventions to nudge users towards reflective news reading*. Total: \$3,000.
- 2018 Co-PI: Virginia Tech ICTAS Data & Decisions grant. *Immersive Space to Think (IST): Combining Virtual Reality and Analytics for Improved Sensemaking*. Total: \$10,000.

## INVITED PRESENTATIONS

DEC 2023	Stanford Seminar on People, Computers and Design
Nov 2023	Algorithmic Design in the Context of Human Rights panel., Hrant Dink Foundation
SEP 2023	Microsoft Research, Bangalore
SEP 2023	Indian Institute of Science (IISC) Bangalore
Jun 2023	MEDIATE workshop at ICWSM 2023

APR 2023 Carnegie Mellon University, Software and Societal Systems Department, IDeaS Center Seminar Series

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- Feb 2023 World Affairs Council (WAC) U.S. Department of State Delegation Meeting on "Countering Violent Extremism"
- FEB 2023 Spotify Safety Advisory Council Speaker on Algorithm Audits
- Sept 2022 The Grainger Foundation Frontiers of Engineering (FOE) 2022 Symposium
- May 2022 Keynote at (5th FEVER workshop 2022)
- MAR 2022 Seminar Series at the University of Michigan, Information School
- Nov 2021 Keynote at 9th AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2021)
- Nov 2021 Keynote at Google's Long-term Dynamics for Responsible Recommendation Systems Workshop
- Nov 2021 Fall'21 Seminar Series at Stanford Cyber Policy Center led by the Program on Democracy and the Internet
- Oct 2021 Algorithmic Governance: Auditing Search and Recommendation Algorithms for Misinformation, Truth and Trust Online
- JULY 2021 7th Summer Workshop and Internship on "Computational Techniques for Social Good" at IGDTUW, India
- May 2021 Academic Research on YouTube: The State of the Field and Potential Future Directions, at Stanford
- May 2021 Panelist at Exploring Bias & Technology: A Tri-Campus Discussion, with Coded Bias Film Director
- May 2021 Algorithmic Bias and Governance, iSchool's Alumni and Community Spring Lecture
- APR 2021 Algorithmic Bias and Governance, AI workshop on Ensuring Scholarly Access to Digital Records in partnership with the National Archives and Records Administration (NARA) and Virginia Tech.
- MAR 2021 Algorithmic Governance: Auditing Search and Recommendation Algorithms for Misinformation, Spotify Research
- Nov 2020 Algorithmic Governance: Auditing Search and Recommendation Algorithms for Misinformation, Research Symposium, UW iSchool
- Oct 2020 Understanding and Countering Problematic Information on Social Media Platforms, DUB Seminar, UW
- MAR 2020 Dept. of Computer Science, School of Interactive Computing at Georgia Tech
- MAR 2020 School of Information, The University of Texas at Austin, TX
- Feb 2020 Dept. of Computer Science, Emory University
- FEB 2020 Panel on Influence Campaigns & Future Technologies, National Academy of Sciences, Washington DC.
- Feb 2020 Speaker at MisinfoCon, Washington DC.
- Jan 2020 Dept. of Computer Science, Emory University, Atlanta, GA
- Nov 2019 The Future of Speech Online, Center for Democracy & Technology, Washington DC
- JULY 2019 Combating Misinformation Convening, Google, Mountain View, CA
- JULY 2019 ISAT/DARPA Cognitive Defense: Detecting and Defending Against Influence Operations Workshop
- JUN 2019 IARPA CASE Panel: Innovations in Credibility of Information, Washington DC
- MAR 2019 Emerging Trends in Social Media, NATO StratCom Centre Of Excellence, Riga,
- Oct 2018 Urban Dynamics Institute Seminar Series, Oak Ridge National Lab (ORNL), TN
- JULY 2018 ISAT/DARPA Coginitive Defense: Designing for Defense Workshop

July 2018	Combating Misinformation Convening, Google, Mountain View, CA
APR 2017	Dept. of Computer Science & Engineering, University of Minnesota, Minneapolis
-	MN
Mar 2017	School of Information Studies, Syracuse University, NY
FEB 2017	Dept. of Computer Science, Virginia Tech, Blacksburg, VA
FEB 2017	School of Informatics and Computing, Indiana University, Indianapolis, IN
FEB 2017	College of Information Studies, University of Maryland, College Park, MD
FEB 2017	Dept. of Computer Science, University of Maryland, College Park, MD
Jan 2017	Dept. of Communication Studies, Northwestern University, Evanston, IL
Mar 2016	Foley Scholars Brown Bag, GVU Center at Georgia Tech, Atlanta, GA

#### PROFESSIONAL SERVICE & ACTIVITIES

## **Conferences and Journals**

- Program Chair
  - International AAAI Conference on Web and Social Media (ICWSM 2022)
- Editorial Board
  - Journal of Online Trust and Safety 2021, 2022
  - Nature Scientific Reports 2022
- Executive Board of Trustees
  - Conference for Truth and Trust Online (TTO 2021, 2022)
- Organizing Committee
  - Conference for Truth and Trust Online (TTO 2020)
- Tutorial Co-Chair
  - International AAAI Conference on Web and Social Media (ICWSM 2020)
- Workshop Co-Chair
  - ACM SIGCHI Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2019)
- Best Paper Chairs Committee
  - ACM SIGCHI Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2020, 2021, 2022)
  - International AAAI Conference on Web and Social Media (ICWSM 2023)
- Awards Committee
  - Adamic-Glance Distinguished Young Researcher Award (ICWSM Adamic-Glance 2022)
- Senior Program Committee
  - International AAAI Conference on Web and Social Media (ICWSM 2016, 2018, 2019, 2021)
- Program Committee
  - ACM Conference on Fairness, Accountability, and Transparency (FAccT 2022)
  - ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2018, 2022)
  - International World Wide Web Conference (WWW 2015, 2018)
  - International AAAI Conference on Web and Social Media (ICWSM 2014, 2015)
  - ACM SIGCHI Conference on Human Factors, Late Breaking Work (CHI-LBW 2018)
- Reviewer
  - Science Advances, American Association for the Advancement of Science's (AAAS 2020)

- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2013 - 2016)
- ACM SIGCHI Conference on Human Factors (CHI 2014 2017)
- International World Wide Web Conference (WWW 2021)
- International AAAI Conference on Web and Social Media (ICWSM 2014, 2015)
- ACM International Conference on Web Search and Data Mining (WSDM 2014)

# **Industry & Non-profits**

- Advisory Board: Spotify Safety Council (2022, 2023)
- Advisory Committee: Social Data Initiative, Social Science Research Council SSRC (2020)

# iSchool, University of Washington

- Faculty Search Committee (2020 2021)
- PhD Programs Committee (2021 2022, 2022 2023)

# CS Department, Virginia Tech

- AI/ML Faculty Search Committee (2018 2019)
- PhD Admissions Committee (2019 2020)
- Organizer of the 4th Annual Virginia Tech Workshop on the Future of Human-Computer Interaction, *Algorithms that Make you Think* (2019)

#### **TEACHING EXPERIENCE**

*Note:*  $\star$ : *Developed new courses.* 

# Instructor, University of Washington, Seattle, WA

• INSC 598 \*: Social Computing (Graduate)

- Spring 2023
- IMT 547 \*: Social Media Data Mining & Analysis (Graduate, 40 students) Spring 2022 Combined Median Course Evaluation: 4.6/5.0, Instructor's Contribution Median: 4.8/5.0, Response Rate: 59% high
- IMT 573 : Data Science Theoretical Foundations (Graduate, 40 students) Autumn 2021 Combined Median Course Evaluation: 4.1/5.0, Response Rate: 94% very high
- IMT 547 \*: Social Media Data Mining & Analysis (Graduate, 40 students) Winter 2021 Combined Median Course Evaluation: 4.6/5.0, Instructor's Contribution Median: 4.8/5.0, Response Rate: 54% high
- IMT 573: Data Science Theoretical Foundations (Graduate, 40 students) Autumn 2020 Combined Median Course Evaluation: 4.6/5.0, Instructor's Contribution Median: 4.7/5.0, Response Rate: 77% very high

## **Instructor**, Virginia Tech, Blacksburg, VA

- CS 3654: Intro Data Analytics & Visual (Undergrad, 90 students, 3 sections) Spring 2020
  - Section CS: Median Teaching Effectiveness Score: 6.0/6.0, Response Rate: 46.43%
  - Section CMDA: Median Teaching Effectiveness Score: 5.0/6.0, Response Rate: 44.90%
  - Section STAT: Median Teaching Effectiveness Score: 5.0/6.0, Response Rate: 66.67%
- CS 4984 \* : Data Science & Analytics Capstone (Undergraduate, 25 students) Spring 2019 *Median Teaching Effectiveness Score*: 5.40/6.0, Response Rate: 90.90%
- CS 5984 \*: Social Computing (Graduate course, 25 students) Fall 2018

  Median Teaching Effectiveness Score: 5.09/6.0, Response Rate: 78.60%
- CS 6724 \* : Computational Social Science (Graduate Seminar, 18 students) Spring 2018 *Median Teaching Effectiveness Score*: 5.82/6.0, Response Rate: 91.67%

• CS 4984 \* : Social Computing Capstone (Undergraduate, 18 students) Median Teaching Effectiveness Score: 5.13/6.0, Response Rate: 83.33%

Fall 2017

Fall 2019 – Summer 2020

#### **MENTORING & ADVISING**

# PostDoctoral Scholar Supervised, Virginia Tech

• Mattia Samory – Ph.D., University of Padova, Fall 2017 - Fall 2018 First Position as research scientist in GESIS - Leibniz Institute for the Social Sciences, Germany.

# Current Ph.D. Students, University of Washington

<ul> <li>Neelesh Agarwal – Ph.D. Informatics</li> </ul>	Fall 2022 – present
<ul> <li>Saloni Dash – Ph.D. Informatics</li> </ul>	Fall 2022 – present
<ul> <li>Kristen Engel – Ph.D. Informatics</li> </ul>	Fall 2021 – present
<ul> <li>Shruti Phadke – Ph.D. Informatics</li> </ul>	Fall 2018 – present
<ul> <li>Prerna Juneja – Ph.D. Informatics</li> </ul>	Fall 2018 – present

# Current Ph.D. Students, Virginia Tech

• MD Momen Bhuiyan – Ph.D. CS Fall 2017 – present Fall 2019 – present Brian Felipe Keith – Ph.D. CS

## Masters Students Supervised, University of Washington

• Lee Polla — MSIM Autumn 2021 – Spring 2022 Shuang Zhao — MSIM Winter 2022 Prathamesh S. Mahankal – MSIM Independent Study Winter 2020

# Masters Students Supervised, Virginia Tech

• Deepika Ramasubramanian – M.S. CS

First Position: PhD student at CU Boulder Information Science. Vartan Kesis Abnousi – M.S. CS Fall 2018 – Fall 2020 Ashish Baghudana – M.S. CS Fall 2017 • Shruti Phadke – M.S. ECE Fall 2017

# **Graduate Thesis Committees**, University of Washington

First Position as a Ph.D. student at Virginia Tech, now at UW.

• Kayla Duskin – Ph.D. Informatics ongoing • Sydney DeMets – Ph.D. Informatics ongoing • Emily Porter – Ph.D. Informatics Winter 2022 – present

## **Graduate School Representative**, University of Washington

 Keri Mallari – Ph.D. HCDE, UW ongoing • Quanze Chen – Ph.D. CS, UW Summer 2022 • Judith Yaaqoubi – Ph.D. HCDE, UW Autumn 2020

## **Graduate Thesis Committees**, Virginia Tech

• Lindah Kotut – Ph.D. Computer Science Fall 2020 – Summer 2021 First Position: Tenure Track Faculty at University of Washington, iSchool.

• Sukrit Venkatagiri – Ph.D. Computer Science

Spring 2022 • Whitney Hayes – Ph.D. Sociology Spring 2023

• Ziqian Alice Song – Ph.D. Computer Science Summer 2020 First Employment: Assistant Professor, University of Scranton

Fall 2018 • Siddharth Krishnan – Ph.D. Computer Science (*Graduated*) • Viral Pasad – M.S. Computer Science (*Graduated*) Summer 2020 • Patrick Sullivan – M.S. Computer Science (*Graduated*) Fall 2019 • Meghendra Singh – M.S. Computer Science (*Graduated*) Fall 2018 **Undergraduate Thesis Committees**, University of Washington • Hayoung Jung — B.S. UW CS Winter 2021 – present Undergraduate Research Assistants, UW • Hayoung Jung — B.S. UW CS (NSF-REU) Winter 2021 – present • David Xie — B.S. UW Informatics Autumn 2021 - Spring 2022 • Emelia M Hughes — B.S. UW Informatics Winter 2021 - present • Louis Leng — B.S. UW Informatics Summer 2022 – present • Vincent Zhiyuan Zhou — B.S. CS Summer 2022 • Ethan Yee — B.S. UW CS Bothell Summer 2022 • Alice Zhang — B.S. UW CS Spring 2022 • Renee Wang — B.S. UW CS Spring 2021 – Spring 2022 • Sophia Wang – B.S. C.S., Brandeis University (NSF-REU) Summer 2021 • Naitian Zhou – B.S. C.S., University of Michigan (NSF-REU) Summer 2021 • Srinidhi Balaram — B.S. UW Informatics Autumn 2021 • Stephanie Zhang — B.S. UW Informatics Winter 2020 Undergraduate Research Assistants, Virginia Tech • Stephen Tan – B.S. C.S., VTech Spring 2019, Spring 2020 • Henry Wang – B.S. C.S., VTech (NSF-REU) Fall 2019, Spring 2020 • Danielle Ababa – B.S., VT Comm. (NSF-REU) Fall'19, Spr'20 • Jonathan Alexander – B.S. C.S. Fall 2019, Spring 2020 • Ankita Khera – B.S. C.S. Fall 2019 • Liz Dao – B.S. C.S. Fall 2019 • Liling Yuan – B.S. C.S. Fall 2019 • Barrett Lattimer – B.S. C.S. Fall 2018 • Margaret Stump – B.S. C.S. Spring 2018 • Andy Du Zhang – B.S. C.S. Spring 2018 • Hithesh Peddamekala – B.S. C.S. Spring 2018 • Matthew Bernas – B.S. C.S. Spring 2018 Fall 2016 • Kexin Zhang – B.S. IsYE (GaTech) **Previously Mentored Students** • Shruthi K. Hiremath – M.S. C.S. (GaTech) Fall 2016 • Sanjana Shankar – M.S. C.S. (GaTech) Spr'16 to Fall'16 • Graham Wright – B.S. C.S. (GaTech) Summer 2015 to Present • Akanksha – M.S. C.S. (GaTech) Fall 2015 • Amish Goyal – M.S. C.S. (GaTech) Fall 2013 • Mohammad Asgharneya – M.S. C.S. (GaTech) Fall 2012 • Karthik Uppuluri – B.S. C.S. (GaTech) Summer 2012

• Sarena Chism – Louis Stokes Alliance for Minority Participation (LSAMP) Fall 09 - Spr'10

#### **SELECTED PRESS COVERAGE**

Subject Matter Expert The Guardian (Dec 2021). AmazonSmile donated more than \$40,000 to antivaccine groups in 2020.

GeekWire (Dec 2021). COVID-19 misinformation still featured on Amazon, months after inquiries from lawmakers.

Amazon Audit CHI'21 [30] Venture Beat (Jan 2021). UW researchers say Amazon's algorithms spread vaccine misinformation.

Brookings Tech (June 2021). The conspiracy and disinformation challenge on e-commerce platforms

King-TV (Jan 2021). Aired on January 29, 2021 at 4:45 AM on KING-TV (Seattle, WA)

KCPQ-TV (Jan 2021). Aired on January 29, 2021 at 4:53 AM on Fox 13 Seattle. KOMO-AM (Jan 2021). Aired on January 29, 2021 at 7:32 AM on KOMO-AM (Seattle, WA).

Seattle Times (Jan 2021). Amazon algorithms promote vaccine misinformation, UW study says.

India Times (Jan 2021). *Amazon's algorithms boost vaccine misinformation, says study.* 

The Spokesman Review (Jan 2021). UW study finds Amazon promotes vaccine lies, especially to already misinformed users.

The Columbian (Jan 2021). Amazon search boosts anti-vax books.

Al Jazeera (Jan 2021). Amazonovi algoritmi promiču antivakserske dezinformacije.

The Next Web (Feb 2021). Amazon's search algorithm spreads vaccine disinformation, study finds.

The Daily (Feb 2021). Amazon is a 'marketplace of multifaceted health misinformation,' UW study says.

YouTube Audit CSCW'20 [29] Business Insider (Nov 2020). YouTube's algorithm is steering viewers away from anti-vaccine videos.

The Hill (Nov 2020). New study finds YouTube is now suppressing anti-vaccine videos.

Conspiracy Joining CSCW'20 [28]

New Scientist (Jan 2021). How social media can nudge people into becoming conspiracy theorists.

Popular Science (July 2021). UFO conspiracies can be more dangerous than you think.

ICWSM'18 [18]

Wired (2018). Here's One Way to Reform an Internet Conspiracy Theorist.

ICWSM'16 [13]

NYMag (2016). Twitter Study Finds Facts Don't Matter to Anti-Vaxxers.

ICWSM'15 [11]

New Scientist (2015). Hoax spotter finds a quarter of everything on Twitter is false.

The Independent (2015). 25% of everything on Twitter is false.

CSCW'14 [8]

Mashable (2015). The Key to Kickstarter Success.

Washington Post (2014). Step 1 to receiving money on Kickstarter: Give back.

Forbes (2014). To Get Funded On Kickstarter.

CNet (2014). Researchers reveal the language of Kickstarter success.

Los Angeles Times (2014). Scientists turn to crowdfunding to support research.

Nonprofit Quarterly (NPQ) (2014). What Language Works Best in Crowdfunding Campaigns?

ICWSM'14 [7]

Huffington Post (2012). Office Gossip Found In Nearly 15% Of Enron's Emails. Yahoo News (2012). Why Office Gossip Isn't a Bad Thing After All.