# Prerna Juneja

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# **Overview**

A human-computer interaction researcher with 5+ years of experience in conducting interdisciplinary research across high-impact problem domains such as responsible AI, ethics, and policy. I combine AI, data-driven techniques, and human-centered design processes with large-scale real-world deployments to understand the risks of A.I. systems and tools, including generative A.I. models.

Research Interests: Human-computer interaction | Responsible AI | Designing for trust, transparency, and explainability | Online misinformation

Accomplishments and Real-World Impact:

- Part of Open Al's Red Team Network
- U.S. Representative Adam Schiff cited my research in congressional letter
- · Interviewed by the U.S. House Select Subcommittee staff about challenges of problematic algorithmic recommendations
- Research recognized by media, notably in **The Seattle Times**, **The Guardian**, **Al Jazeera**, etc.
- Managed and led a team of 10 researchers, designers, and engineers to design YouCred, a fact-checking tool deployed at fact-checking organization Pesacheck

### Education\_\_\_\_\_

#### **University of Washington**

	Seattie, 88/1
PhD in Information Science	Sep. 2020 - Aug. 2023
Adviser: Dr. Tanushree Mitra • SSRC PhD Dissertation Fellowship 2020-2021	
Virginia Tech	Blacksburg, USA
PhD IN COMPUTER SCIENCE - transferred to University of Washington	Aug. 2018 - Jul. 2020
Adviser: Dr. Tanushree Mitra	
IIIT Delhi	Delhi, India
Master of Technology in Computer Science (M.Tech. CS)	Aug. 2013 - May. 2015
Adviser: Dr. Ashish Sureka	

# Experience\_\_\_\_\_

<b>OpenAl</b> INDEPENDENT CONTRACTOR, OPENAI RED TEAMING NETWORK • Participated in OpenAI led red teaming efforts to assess the risks and safety profile of OpenAI models and systems.	Seattle, USA Jan 2024-Present
Seattle University Assistant Professor, Computer Science Department	Seattle, USA Sept 2023-Present
Dataminr Research Intern • Studied users' needs from search results explanations.	Remote June 2022-Sept 2022
<ul> <li>University of Washington</li> <li>RESEARCH ASSISTANT</li> <li>Conducted audits to understand the role of online algorithms in amplifying misinformation</li> <li>Worked with fact-checking organizations to understand their needs and built tools for them</li> </ul>	Seattle, USA Sept 2020-Aug 2023
Information Science Institute, USC RESEARCH INTERN • Modeled users who are susceptible to misinformative content on social media platforms.	Remote May 2020-Aug 2020
<b>Dell EMC</b> Software Engineer 2	Bengaluru, India Aug 2015-July 2018

- Designed & developed eLicense solution that helped EMC to track customer's storage usage & compliance
- Scaled and improved the performance of the user operations
- Supported VMware's VASA2.0 specifications by implementing interfaces to query storage details and perform storage manageability operations

## Honors & Awards

- University of Washington Graduate School Medal Award 2023: Recognizes a Ph.D. candidate who is tackling a challenge of tremendous social importance through extraordinarily rigorous scholarship. 🖸 🖓
- Impact Recognition Award: ACM CSCW 2022
- Honourable Mention Award: ACM CSCW 2022
- Research cited in congressional letter: U.S. Representative Adam Schiff cited my Amazon audit research in his congressional letter where he asked Amazon to address the problem of vaccine misinformation

Seattle LISA

- Best Paper Honourable Mention Award: ACM CHI 2021
- SSRC Dissertation Fellowship 2020: Supports thesis work on algorithmically curated misinformation
- CRA-W Grad Cohort Grant 2019: Received scholarship to attend Grad Cohort workshop
- Excellence@Dell Bronze Award: May 2018, July 2017 and Aug 2016
- Dell Champion Award: Aug 2018
- · Merit Scholarship: Awarded during 1st and 3rd year of bachelors for securing second and first position respectively

### **Publications**

#### **Heavily Peer-Reviewed Conference Proceedings**

- Hayoung Jung, Prerna Juneja, and Tanushree Mitra. Algorithmic Behaviors Across Regions: A Geolocation Audit of YouTube Search for COVID-19 Misinformation between the United States and South Africa. In Proc. International AAAI Conference on Web and Social Media (ICWSM 2025).
- 10. **Prerna Juneja**, Wenjuan Zhang, Alison Marie Smith-Renner, Hemank Lamba, Joel Tetreault, and Alex Jaimes. Dissecting users' needs for search result explanations. *In Proc. ACM Conference on Human Factors in Computing Systems (CHI 2024).*
- 9. Emelia May Hughes, Renee Wang, **Prerna Juneja**, Tony W Li, Tanushree Mitra, and Amy X. Zhang. Viblio: Introducing Credibility Signals and Citations to Video-Sharing Platforms. In Proc. ACM Conference on Human Factors in Computing Systems (CHI 2024).
- 8. **Prerna Juneja**, Momen Bhuiyan, and Tanushree Mitra. Assessing enactment of content regulation policies: A post hoc crowd-sourced audit of election misinformation on YouTube. *In Proc. ACM Conference on Human Factors in Computing Systems (CHI 2023).*
- 7. Prerna Juneja and Tanushree Mitra. Human and technological infrastructures of fact-checking. In Proc. ACM Human Computer Interaction, CSCW 2022. Impact Recognition Award, Honourable Mention Award (Top 3% of ACM CSCW papers)
- 6. Prerna Juneja . Identifying, measuring and contesting algorithmically curated misinformation. In Proc. ACM Human Computer Interaction, CSCW Doctoral Colloquium 2021
- 5. Prerna Juneja and Tanushree Mitra. Auditing E-Commerce Platforms for Algorithmically Curated Vaccine Misinformation. In Proc. ACM Conference on Human Factors in Computing Systems (CHI 2021). Best Paper Honourable Mention (Top 5% of ACM CHI papers)
- 4. Eslam Hussein\*, Prerna Juneja\* and Tanushree Mitra. Measuring Misinformation in Video Search Platforms: An Audit Study on YouTube. \* (equal contribution) In Proc. ACM Human Computer Interaction 4, CSCW1, Article 48.
- 3. **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*.
- 2. Prerna Juneja, Divya Kundra, and Ashish Sureka. Anvaya: An algorithm and case-study on improving the goodness of software process models generated by mining event-log data in issue tracking systems. In Proceedings of the 40th IEEE Annual Computer Software and Applications Conference (COMPSAC), 2016.
- 1. Divya Kundra, **Prerna Juneja**, and Ashish Sureka. Vidushi: parallel implementation of alpha miner algorithm and performance analysis on CPU and GPU architecture. *In Proceedings of the International Conference on Business Process Management (BPM)*, 2016.

#### **Workshop Papers**

- 3. Emelia Hughes, Renee Wang, **Prerna Juneja**, Tanushree Mitra and Amy X. Zhang. Introducing Credibility Signals and Citations to YouTube. In Information Credibility Workshop at ICWSM 2021
- 2. Prerna Juneja and Tanushree Mitra. Algorithmic nudge: Using XAI frameworks to design interventions. In CHI 2021 Workshop on Operationalizing Human-centered Perspectives in Explainable AI
- 1. **Prerna Juneja** and Tanushree Mitra. Investigating the impact of personalization on misinformation present in algorithmically curated content in YouTube. *In RecSys 2020 Workshop on Responsible Recommendation*

### Skills\_\_\_\_\_

Programming Languages	Python, Core Java, C, C++, Javascript, Lua, Android
User research	Interviews, surveys, thematic analysis, stakeholder analysis
Data Analysis and Applied ML	Python: pandas, numpy, matplotlib, Seaborn, sklearn, statsmodels
Relevant Coursework	Data Analytics, Social Computing, Statistics in Research, Machine Learning, Deep Learning

# Mentorship

Bryan Kim: B.S. SU: Responsible Al	Summer 2024-Present
Ashleen Sandhu: B.S. SU: Responsible Al	Summer 2024-Present
Lisa Lomidze: M.S. SU: Responsible AI	Fall 2023-Present
<ul> <li>David Xie: B.S. UW Informatics: Fact-checking system project</li> </ul>	Fall 2021, Spring 2022
Alice Zhang: B.S. UW CS: Fact-checking system project	Spring 2022
Lee Polla: MSIM UW: Fact-checking system project	Fall 2021, Spring 2022
Benjamin Ye: B.S. UW CS: Fact-checking system project	Summer 2022-Dec 2022
<ul> <li>Louis Leng: B.S. UW Informatics: Fact-checking system project</li> </ul>	Summer 2022-Spring 2023
Vincent Zhiyuan Zhou: B.S. UW CS: Fact-checking system project	Summer 2022
Ethan Yee: B.S. UW CS: Fact-checking system project	Summer 2022
Srinidhi Balaram: B.S. UW Informatics: Figma design for fact-checking system project	Summer 2022
<ul> <li>Emelia Hughes: B.S. UW Informatics: YouTube credibility signals and citation study</li> </ul>	Fall 2021-Summer 2023
Renee Wang: B.S. UW CS: YouTube credibility signals and citation study	Fall 2021-Spring 2022
Hayoung Jung: B.S. UW CS: YouTube geolocation audit	Summer 2021-Fall 2023
Stephanie L. Zhang: B.S. UW Informatics: Chrome extension to scrape users' YouTube data	2020-2021

- Deepika Ramasubramanian: M.S., Virginia Tech: *Reddit transparency study*Jonathan Alexander: B.S. CS Virginia Tech: *Scraping Twitter feed via selenium bots*
- Ankita Khera: B.S. CS Virginia Tech: Scraping data from Amazon

## Invited Talks\_\_\_\_\_

April 2024	Towards understanding and defending against online misinformation, guest visit for SI 429 and SI 529, School of Information,
	University of Michigan, Ann Arbor, MI
April 2022	Problematic Information, guest visit for IMT 598, University of Washington
September 2021	Investigating algorithms and their impacts, School of Information, University of Michigan, Ann Arbor, MI
September 2021	Auditing YouTube for conspiracy theories, Department of Computer Science, Wellesley College, Wellesley, Massachusetts
May 2021	Auditing online platforms for algorithmically curated misinformation, Virginia Tech, Blacksburg, Virginia

# Press and Media Coverage\_\_\_\_\_

July 2024	Has YouTube failed to curb cancer-related misinformation? Logically Facts 🔀
Nov 2023	
Aug 2023	Heard about the borax trend? Jumping onto it is dangerous. Logically Facts
May 2023	Inside the health books on Amazon: Pseudoscience and unsubstantiated remedies. Logically Facts
Jun 2021	The conspiracy and disinformation challenge on e-commerce platforms. Brookings Tech 🖸
Mar 2021	COVID-19: Anti-vax book sales surge as sellers urged to add warning tags. Sky News 🖸
Jan 2021	Aired on January 29, 2021 at 4:45 AM. King-TV 🖸
Jun 2021	Aired on January 29, 2021 at 7:32 AM. KOMO AM
Jan 2021	Aired on January 29, 2021 at 4:53 AM on Fox 13 Seattle. KCPQ-TV 🖸
Dec 2021	AmazonSmile donated more than \$40,000 to anti-vaccine groups in 2020. The Guardian 🛽 🗷
June 202	1 How Amazon became an engine for anti-vaccine conspiracy theories. Fast Company 🛽 🖉
Jan 2021	Amazon algorithms promote vaccine misinformation, UW study says. The Seattle Times 🛛 🖉
Jan 2021	Amazon's algorithms boost vaccine misinformation, says study. India Times 🖸
Jan 2021	Amazon search boosts anti-vax books. The Columbian 🖸
Jan 2021	Amazonovi algoritmi promiču antivakserske dezinformacije. Al Jazeera 🔀
Feb 2021	Amazon's search algorithm spreads vaccine disinformation, study finds. The Next Web 🖸
Feb 2021	Amazon is a 'marketplace of multifaceted health misinformation,' UW study says. The Daily 🖸
Jan 2021	University of Washington researchers say Amazon's algorithms spread vaccine misinformation. Venture Beat 🗹
Jan 2021	UW study finds Amazon promotes vaccine lies, especially to already misinformed users. The Spokesman Review
Nov 2020	New study finds YouTube is now suppressing anti-vaccine videos. <b>The Hill</b> 🗹
Nov 2020	YouTube's algorithm is steering viewers away from anti-vaccine videos Business Insider 🖸
Oct 2020	Fellowship backs Ph.D. student's research on algorithms and misinformation <b>iNews</b> 🗹
Sep 2020	SSRC Announces the Recipients of the Social Data Research and Dissertation Fellowships SSRC News $ arGamma $

2018-2019 Fall 2019

Fall 2019

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