

# Prerna Juneja

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## Overview

A **human-computer interaction** researcher with 8+ 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 AI systems and tools, including generative AI models.

**Research Interests:** Responsible AI | Data & AI regulations and Standards | AI Auditing | Human-computer interaction | Designing for trust, transparency, and explainability

### Accomplishments and Real-World Impact:

- Awarded **NSF CRII** grant in 2025
- Participated in **Open AI's Red Teaming efforts for GPT 4o model**
- 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 and deploy **YouCred**, a fact-checking tool, at Pesacheck fact-checking organization

## Education

### University of Washington

PHD IN INFORMATION SCIENCE

Adviser: Dr. Tanushree Mitra • SSRC PhD Dissertation Fellowship 2020-2021

Seattle, USA

Aug. 2018 - Jul. 2023

### IIIT Delhi

MASTER OF TECHNOLOGY IN COMPUTER SCIENCE (M.TECH. CS)

Adviser: Dr. Ashish Sureka

Delhi, India

Aug. 2013 - May. 2015

## Experience

### 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

### Information Science Institute, USC

RESEARCH INTERN

- Modeled users who are susceptible to misinformative content on social media platforms.

Remote

May 2020-Aug 2020

### Dell EMC

SOFTWARE ENGINEER 2

- 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

Bengaluru, India

Aug 2015-July 2018

### Defence Terrain Research Laboratory (DTRL), DRDO

RESEARCH INTERN

- Implemented supervised image classification algorithms for the purpose of land use and land cover.

Delhi, India

Summer 2012

## Honors & Awards

- **NSF CRII Award 2025:** Exploring the Dynamics and Quality of Interactions with AI Companion Applications. 📄
- **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 📄
- **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

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Visit my Google Scholar [u45AvTsAAAAJ](https://scholar.google.com/citations?user=u45AvTsAAAAJ) for a complete list

Note: \* indicates a student advised by Prerna Juneja

## Heavily Peer-Reviewed Conference Proceedings

14. **Prerna Juneja** and Lisa Lomidze\*. Persona-Grounded Safety Evaluation of AI Companions in Multi-Turn Conversations: A Case Study on Replika, *ACL Main 2026*. **Oral (Top 4% of submissions)**
13. **Prerna Juneja**, Dongkai Xie\*, Guangyin Ye\*, and Tanushree Mitra. YouCred: An Online Tool Co-Designed with Fact-Checkers for Misinformation Discovery on YouTube, *CSCW 2026*.
12. Saharsh Barve\*, Andy Mao\*, Jiayue Melissa Shi\*, **Prerna Juneja**, and Koustuv Saha. Can we Debias Social Stereotypes in AI-Generated Images? Examining Text-to-Image Outputs and User Perceptions, *AI and Ethics 2026*.
11. 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, *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 and Lightly-Reviewed Papers

5. Bryan Kim\* and **Prerna Juneja**. Bias in the Spotlight: Analyzing Text-to-Image Models for Music Awards and Genre Representation. *Seattle University Research Showcase*
4. Ashleen Sandhu\* and **Prerna Juneja**. Beyond Words: How Text-to-Image Models Interpret Adjectives Across Various Dimensions. *Seattle University Research Showcase*
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*

# Funding

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- 2025 **(Sole PI):** National Science Foundation Early Career CRUI: HCC: RUI: Exploring the Dynamics and Quality of Interactions with AI Companion Applications (NSF #1755547). Total: **\$174,999**
- 2024 **(Sole PI):** College of Science and Engineering Undergraduate Student/Faculty Research Support Award: Understanding biases and cultural stereotypes perpetuated by AI chatbots. Awarded **\$11183.2** to support two undergraduate research assistants.

# Teaching Experience

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- CPSC 4800: *Technical Communications and Project Management* (Undergraduate) Fall 2025
- CPSC 4220/5220: *User Experience Design* (Undergraduate, Graduate) Fall 2025
- CPSC 1220: *Data-Driven Programming*(Undergraduate) Spring 2025
- CPSC 5800: *Ethics & Professional Issues in Computing* (Graduate) Spring 2025
- CPSC-4890-01: *Software Eng & Project Dev III* (Undergraduate) Spring 2025
- CPSC 5830: *Data Science Capstone Project*(Graduate) Winter 2025
- CPSC-4890-01: *Software Eng & Project Dev II* (Undergraduate) Winter 2025
- CPSC 4220: *User Experience Design* (Undergraduate) Fall 2024
- CPSC 5800: *Ethics & Professional Issues in Computing* (Graduate) Fall 2024

- CPSC 5220: *User Experience Design* (Graduate) Spring 2024
- CPSC 5800: *Ethics & Professional Issues in Computing* (Graduate) Spring 2024
- CPSC-4880-05: *Software Eng & Project Dev III* (Undergraduate) Spring 2025
- CPSC 5800: *Ethics & Professional Issues in Computing* (Graduate) Winter 2024
- CPSC-4880-05: *Software Eng & Project Dev II* (Undergraduate) Winter 2025
- CPSC 5305: *Introduction to Data Science* (Graduate) Fall 2023

## Service

<b>Reviewer</b>	ACM CHI (2025, 2024, 2023, 2022), Harvard Kennedy School Misinformation Review (2024), ACM CSCW (2022, 2021, 2020, 2019), ICWSM (2022, 2019), DIS 2021, WebSci 2020
<b>Student volunteer</b>	CSCW 2021, ACM GROUP 2020, Conference For Truth And Trust Online (TTO) 2020
<b>Conference sub committee</b>	ICWSM 2024

## Invited Talks

Dec 2025	<b>Advancing Human-Centered AI: Auditing AI Systems, Designing Collaborative Tools, and Building Trust</b> , invited talk along with three day research visit at Universidad Católica del Norte, Chile
April 2022	<b>Problematic Information</b> , guest visit for IMT 598, University of Washington
September 2021	<b>Investigating algorithms and their impacts</b> , School of Information, University of Michigan, Ann Arbor, MI
September 2021	<b>Auditing YouTube for conspiracy theories</b> , Department of Computer Science, Wellesley College, Wellesley, Massachusetts
May 2021	<b>Auditing online platforms for algorithmically curated misinformation</b> , Virginia Tech, Blacksburg, Virginia

## Mentorship

• Ai Sun: M.S. SU: <i>AI Companionship</i>	Spring 2026-Present
• Ashleen Sandhu: B.S. SU: <i>AI Companionship</i>	Fall 2023-Present
• Sriram Krishna: M.S. SU: <i>Responsible AI</i>	Fall 2024
• Bryan Kim: B.S. SU: <i>Responsible AI</i>	Summer 2024
• Lisa Lomidze: M.S. SU: <i>AI Companionship</i>	Fall 2023-Summer 2025
• Gauri Narayan Mhetre: B.S. UW Informatics: <i>Responsible AI</i>	Fall 2023
• Hayoung Jung: B.S. UW CS: <i>YouTube geolocation audit</i>	Summer 2021-Fall 2024
• David Xie: B.S. UW Informatics: <i>Fact-checking system project</i>	Fall 2021, Spring 2022
• Alice Zhang: B.S. UW CS: <i>Fact-checking system project</i>	Spring 2022
• Lee Polla: MSIM UW: <i>Fact-checking system project</i>	Fall 2021, Spring 2022
• Benjamin Ye: B.S. UW CS: <i>Fact-checking system project</i>	Summer 2022-Dec 2022
• Louis Leng: B.S. UW Informatics: <i>Fact-checking system project</i>	Summer 2022-Spring 2023
• Vincent Zhiyuan Zhou: B.S. UW CS: <i>Fact-checking system project</i>	Summer 2022
• Ethan Yee: B.S. UW CS: <i>Fact-checking system project</i>	Summer 2022
• Srinidhi Balaram: B.S. UW Informatics: <i>Figma design for fact-checking system project</i>	Summer 2022
• Emelia Hughes: B.S. UW Informatics: <i>YouTube credibility signals and citation study</i>	Fall 2021-Summer 2023
• Renee Wang: B.S. UW CS: <i>YouTube credibility signals and citation study</i>	Fall 2021-Spring 2022
• Stephanie L. Zhang: B.S. UW Informatics: <i>Chrome extension to scrape users' YouTube data</i>	2020-2021
• Deepika Ramasubramanian: M.S., Virginia Tech: <i>Reddit transparency study</i>	2018-2019
• Jonathan Alexander: B.S. CS Virginia Tech: <i>Scraping Twitter feed via selenium bots</i>	Fall 2019
• Ankita Khera: B.S. CS Virginia Tech: <i>Scraping data from Amazon</i>	Fall 2019

## Press and Media Coverage

Jul 2024	Has YouTube failed to curb cancer-related misinformation? <b>Logically Facts</b> <a href="#">↗</a>
Nov 2023	'Heavy metal detox bath' for kids: Unscientific trend catapults into 'health advice' <b>Logically Facts</b> <a href="#">↗</a>
Aug 2023	Heard about the borax trend? Jumping onto it is dangerous. <b>Logically Facts</b> <a href="#">↗</a>
May 2023	Inside the health books on Amazon: Pseudoscience and unsubstantiated remedies. <b>Logically Facts</b> <a href="#">↗</a>
Jun 2021	The conspiracy and disinformation challenge on e-commerce platforms. <b>Brookings Tech</b> <a href="#">↗</a>
Jan 2021	University of Washington researchers say Amazon's algorithms spread vaccine misinformation. <b>Venture Beat</b> <a href="#">↗</a>
Mar 2021	COVID-19: Anti-vax book sales surge as sellers urged to add warning tags. <b>Sky News</b> <a href="#">↗</a>
Jan 2021	Aired on January 29, 2021 at 4:45 AM. <b>King-TV</b> <a href="#">↗</a>
Jun 2021	Aired on January 29, 2021 at 7:32 AM. <b>KOMO AM</b> <a href="#">↗</a>
Jan 2021	Aired on January 29, 2021 at 4:53 AM on Fox 13 Seattle. <b>KCPQ-TV</b> <a href="#">↗</a>
Dec 2021	AmazonSmile donated more than \$40,000 to anti-vaccine groups in 2020. <b>The Guardian</b> <a href="#">↗</a>
June 2021	How Amazon became an engine for anti-vaccine conspiracy theories. <b>Fast Company</b> <a href="#">↗</a>
Jan 2021	Amazon algorithms promote vaccine misinformation, UW study says. <b>The Seattle Times</b> <a href="#">↗</a>
Jan 2021	Amazon's algorithms boost vaccine misinformation, says study. <b>India Times</b> <a href="#">↗</a>
Jan 2021	Amazon search boosts anti-vax books. <b>The Columbian</b> <a href="#">↗</a>

- Jan 2021 Amazonovi algoritmi promiču antivakcerske 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. **The Hill** [↗](#)
- 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 **iNews** [↗](#)
- Sep 2020 SSRC Announces the Recipients of the Social Data Research and Dissertation Fellowships **SSRC News** [↗](#)