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 AI'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   *Seattle, USA*
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

OpenAI   *Seattle, USA*
Independent Contractor, OpenAI Red Teaming Network   *Jan 2024-Present*
- Participated in OpenAI led red teaming efforts to assess the risks and safety profile of OpenAI models and systems.

Seattle University   *Seattle, USA*
Assistant Professor, Computer Science Department   *Sept 2023-Present*

Dataminr   *Remote*
Research Intern   *June 2022-Sept 2022*
- Studied users' needs from search results explanations.

University of Washington   *Seattle, USA*
Research Assistant   *Sept 2020-Aug 2023*
- Conducted audits to understand the role of online algorithms in amplifying misinformation
- Worked with fact-checking organizations to understand their needs and built tools for them

Information Science Institute, USC   *Remote*
Research Intern   *May 2020-Aug 2020*
- Modeled users who are susceptible to misinformative content on social media platforms.

Dell EMC   *Bengaluru, India*
Software Engineer 2   *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 ⬈

- **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

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 AI* — *Summer 2024-Present*
- Ashleen Sandhu: B.S. SU: *Responsible AI* — *Summer 2024-Present*
- Lisa Lomidze: M.S. SU: *Responsible AI* — *Fall 2023-Present*
- David Xie: B.S. UW Informatics: *Fact-checking system project* — *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*
- Louis Leng: B.S. UW Informatics: *Fact-checking system project* — *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*
- Emelia Hughes: B.S. UW Informatics: *YouTube credibility signals and citation study* — *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* — *2018-2019*
- Jonathan Alexander: B.S. CS Virginia Tech: *Scraping Twitter feed via selenium bots* — *Fall 2019*
- Ankita Khera: B.S. CS Virginia Tech: *Scraping data from Amazon* — *Fall 2019*

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   'Heavy metal detox bath' for kids: Unscientific trend catapults into 'health advice' **Logically Facts** ⧉

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 2021   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. **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** ⧉