Hayoung Jung

CONTACT
INFORMATION

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RESEARCH
INTERESTS

My research focuses on advancing inclusive AI technologies and online platforms to better serve people who are overlooked in the development of these systems. Driven by my interdisciplinary background, I develop technical frameworks and methods grounded in social science to (1) audit AI technologies and platforms for bias and misinformation, and (2) understand social phenomena, such as community norms, through language and online behavior, to promote socially-attuned and equitable technologies.

Topics : *Social Computing, Algorithmic Audits, AI Ethics, Computational Social Science, and NLP.*

EDUCATION

University of Washington, Seattle, Washington   2023 - Present
    M.S. in Computer Science
    Adviser : Tanushree Mitra, GPA : 4.0/4.0

University of Washington, Seattle, Washington   2019 - 2023
    B.S. with Distinction in Computer Science, B.A. in Political Science
    Departmental Honors ; *magna cum laude*
    Adviser : Tanushree Mitra, GPA : 3.94/4.0

PUBLICATIONS

* denotes equal contributions

<u>In Preparation</u>

[1] **Hayoung Jung**, Shravika Mittal, Munmun De Choudhury, and Tanushree Mitra. Investigating YouTube Search and Recommendations for Online Myths on Opioid Use Disorder. *To be submitted at EMNLP 2025.*

[2] Navreet Kaur, **Hayoung Jung**, Shravika Mittal, Munmun De Choudhury, and Tanushree Mitra. Persona-based Evaluation of Generative Search for Opioid-use Information. *In preparation.*

<u>Peer-Reviewed Conferences</u>

[3] **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 *Proceedings of ICWSM 2025.*

[4] Shravika Mittal, **Hayoung Jung**, Mai ElSherief, Tanushree Mitra, and Munmun De Choudhury. Online Myths on Opioid Use Disorder: A Comparison of Reddit and Large Language Model. In *Proceedings of ICWSM 2025.*

[5] Chan Young Park*, Shuyue Stella Li*, **Hayoung Jung***, Svitlana Volkova, Tanushree Mitra, David Jurgens, and Yulia Tsvetkov. ValueScope: Unveiling Implicit Norms and Values via Return Potential Model of Social Interactions. In *Proceedings of Findings of EMNLP 2024.*

[6] Preetam Prabhu Srikar Dammu*, **Hayoung Jung***, Anjali Singh, Monojit Choudhury, and Tanushree Mitra. "They are uncultured": Unveiling Covert Harms and Social Threats in LLM Generated Conversations. In *Proceedings of EMNLP 2024.* <u>Nominated for Best Paper Award.</u>

- Featured : "In the 'Wild West' of AI chatbots, subtle biases related to race and caste often go unchecked" (UW News)

RESEARCH
EXPERIENCES

Social Computing & Algorithmic Experiences Lab, UW Information School   2023 - Present
Graduate Research Assistant, advised by Tanushree Mitra

TsvetShop, UW Computer Science & Engineering   2023 - 2024
Graduate Research Assistant, advised by Yulia Tsvetkov, David Jurgens, & Tanushree Mitra

Social Computing & Algorithmic Experiences Lab, UW Information School   2021 - 2023
Undergraduate Research Assistant, advised by Tanushree Mitra.
<u>DUB REU Fellow</u> (Summer '21, '22)

Awards & Honors	**Graduate Student Conference Presentation Award,** UW Graduate School	2024

Awards &
Honors

Graduate Student Conference Presentation Award, UW Graduate School   2024
Awards $300 to support registration fees for a conference presentation.

Undergraduate Service Award, UW Computer Science & Engineering   2023
Awards 5 UW CSE undergraduates, out of 2,000 students, for their outstanding
service to the department.

Population Health Recognition Award, UW Undergraduate Research Program   2023
Recognizes undergraduate researchers presenting at the UW Research Symposium
for their "innovative and well-presented population health research work."

Phi Beta Kappa, Washington Alpha Chapter   2022
Honors top-ranking students based on cumulative academic achievement.

Husky 100 Award, University of Washington   2022
Awards 100 out of 55,000 students for significant contributions to the university.

Mary Gates Research Scholarship, University of Washington   2022
A competitive $5,000 research scholarship for undergraduates at the UW.

CRA Outstanding Undergraduate Researcher Award Nominee, UW Information School   2021
One of four students nominated by the UW iSchool for the national award.

Washington State Opportunity Scholarship, State of Washington   2021
Awards undergraduate students from low- and middle-income families
in Washington State to support their higher education pursuits.

Roy F. Mather Scholarship, Community Foundation for Southwest Washington   2020
Awards $2,500 to an outstanding engineering student from Southwest Washington.

Teaching
Experience

CSE444 : Database Systems Internals, UW CSE   Winter 2025
Graduate Teaching Assistant, Instructor : Ryan Maas

- Lead quiz sections, grade assignments, and host office hours.

INFO498 : Algorithms and Society, UW Information School   Spring 2024
Guest Lecturer, Title : "My Journey Through Undergraduate Research"

- Presented my research journey, key findings, lessons learned, and ways to get involved in research.

CSE414 : Intro to Database Systems, UW CSE   Autumn 2023, Winter 2024
Graduate Teaching Assistant, Instructor : Ryan Maas

- Led quiz sections for 35 students, receiving positive reviews and 4.90/5.00 average rating.
- Held office hours, graded assignments, and answered 600 student questions on the course board.

CSE190B : CSE Direct Admit Seminar, UW CSE   Autumn 2022
Undergraduate Teaching Assistant, Instructor : Dan Grossman

- Prepared discussion segments, organized panels, and held office hours for new college students.

CSE142 : Intro to Programming I, UW CSE   Autumn 2021
Undergraduate Teaching Assistant, Instructor : Brett Wortzman

- Conducted weekly quiz sections for 25 programming novices, earning 4.92/5.00 average rating.
- Led weekly office hours and graded assignments to foster good programming practices.

Juni Learning   Autumn 2020 - Spring 2021
Computer Science Instructor

- Taught introductory Python and Java in weekly one-on-one lessons (220 teaching hours).

Industry
Experience

Qualtrics, NLP and Machine Learning   (Forthcoming) Summer 2025
Applied Scientist Intern

F5 Networks, Rapid Development Team   Summer 2024
Software Engineer Intern

- Developed a CLI, web browser, and REST API tool to automatically build dependency trees
  and efficiently search upstream and downstream dependencies of F5OS projects.

F5 Networks, Distributed Cloud Edge Services Team   Summer 2023
Software Engineer Intern

- Designed and implemented a proof-of-concept Enterprise Connector tool for linking F5XC's CDN
  Edge Servers with Google Cloud Storage. Received highest performance rating from manager.

Leadership

UW Association for Computing Machinery (UW ACM)   2019-2023
Student Adviser, Vice Chair, Treasurer, Associate Officer

- Led the largest student-run organization at the Allen School, focused on enhancing student experiences by organizing events, such as internship panels and quarterly departmental socials.
- Spearheaded the Research Night Series, with 110 undergraduates attending to learn more about getting involved in computing research and engage with 9 attending labs at UW.
- Expanded and restructured the Big/Little Peer Mentorship Program to support the growing cohorts of 350 students, enhancing their transition to college.
- Helped lead quarterly fundraising efforts for the University District Food Bank, Code.org, Black Girls CODE, and Seattle Children's Hospital, raising a total of $7,460 in donations.

Polling and Open Data Initiative at the University of Washington　　　　2020-2021
Co-Founder & Technology Director, advised by Christopher S. Parker & Geoffrey P.R. Wallace

- Founded a 25-student organization that gathers, analyzes, and presents data to advance public understanding of our communities and shape their policies.
- **Key Outcome :** Analyzed 3,769 student responses from UW's tri-campus survey on remote learning experiences and opinions, providing policy recommendations to the UW Board of Regents [PDF] on post-pandemic education practices.
- **Other Communities & Organizations Served :** Paul G. Allen School of Computer Science & Engineering [PDF], Associated Students of the University of Washington [PDF] and Washington State Parks Foundation, providing data-driven insights and policy recommendations.

Associated Students of the University of Washington (ASUW)　　　　2019-2020
Student Senator & Member of the Student Technology Fee (STF)

- Lobbied state legislators at the Washington State Capitol on higher education issues.
- Oversaw the funding of 13 technology project proposals through STF's $10 million budget during the COVID-19 pandemic (e.g., remote computing resources, departmental equipment renewals).

Service &
Volunteer

Mentoring

- Ananya Aatreya, University of Washington : 2025

Reviewing

- EMNLP Workshop on Customizable NLP (CustomNLP4U) : 2024
- ICWSM : 2025
- ACL Student Research Workshop (SRW) : 2025

Department Committees

- Allen School Diversity Committee : 2021-2023
- Allen School Teaching-Track Faculty Recruiting Committee : 2022-2023

Volunteer

- Volunteer & Room Monitor, EMNLP Workshop on Customizable NLP : 2024
- Speaker & Organizer, UW ACM Research Night Series : 2021-2022
- Organizer, UW ACM New Student Big/Little Peer Mentorship Program : 2021-2022
- Organizer, UW ACM First / Second-Year Internship Prep Panel : 2020-2021
- Organizer, UW CSE Quarterly Departmental Socials : 2019-2023
- Panelist, Admitted Student Day Undergraduate Research Roundtable : 2022
- Panelist, CSE Direct Admit Seminar (Undergrad Research Panel) : 2020, 2022
- Panelist, Allen School Spring Research Showcase : 2021

Presentations

"They are uncultured" : Unveiling Covert Harms & Social Threats in Generated Conversations.
EMNLP 2024 (Oral), Miami FL, USA　　　　　　　　　　　　　　　　　　November 2024

ValueScope : Unveiling Implicit Norms and Values via Return Potential Model.
EMNLP 2024 (Poster), Miami FL, USA　　　　　　　　　　　　　　　　　November 2024

Geolocation Audit of YouTube for COVID-19 Misinformation
UW Undergraduate Research Symposium, Seattle WA, USA.　　　　　　　　　　May 2023

Auditing YouTube for Misinformation Prevalent in the Global South
UW DUB REU Symposium, Seattle WA, USA.　　　　　　　　　　　　　　August 2021

Skills   • **Computer-related :** Python, SQL, Java, C/C++, R, Pandas, PyTorch, Flask, Numpy, Git, Matplotlib, AWS, Azure, Javascript, NGINX, HTML/CSS
• **Natural Languages :** English (native) ; Korean (fluent)