Eugenia H. Rho

Virginia Tech Department of Computer Science
220 Gilbert Street
Blacksburg, VA, 24060

✉ eugenia[at]vt[dot]edu
🐦 @eugeniarho
🖥 eugeniarho.com

Research Interests: Human-Computer Interaction (HCI), Natural Language Processing (NLP), Human-AI Interaction, Statistics, Machine Learning (ML), Computational Social Science, Social Computing.

APPOINTMENTS

Department of Computer Science, Virginia Tech   **2020 – 2021**
Assistant Professor
Director of Society + AI and Language (SAIL) Research Lab
Core Faculty, Sanghani Center for Artificial Intelligence
Affiliate Faculty, Virginia Tech Center for Autism Research
Affiliate Faculty, Center for Human-Computer Interaction

Meta (Facebook), Menlo Park, CA   **2017**
Research Intern

NORC at the University of Chicago, Chicago, IL   **2016**
Data Science Intern

University of California, Irvine, Irvine CA   **2016**
Graduate Research Assistant

PricewaterhouseCoopers, Seoul, South Korea   **2013 – 2014**
Consultant

Opera Solutions, New York, NY   **2011 – 2012**
Management Consultant

EDUCATION

Department of Computer Science, Stanford University, Palo Alto, CA   **2020 – 2021**
Post-doctoral Researcher, Stanford NLP Group
Advisor: Dan Jurafsky; Co-Advisor: Jennifer Eberhardt

School of Information & Computer Sciences, University of California, Irvine, CA   **2015 – 2020**
Ph.D. in Informatics
Thesis: Design of Online Environments and the Quality of Democratic Discourse At-Scale
Committee: Melissa Mazmanian (chair), Judy Olson, Kai Zheng

Columbia University (Columbia College), New York, NY   **2007 – 2011**
B.A. in Political Science, Dean's List

GRANTS, FELLOWSHIPS, HONORS

CAREER: AI-Mediated Communication (AIMC) Support for Neurodiverse-Neurotypical (ND-NT) Conversations: From Bias Detection to Inclusive Interventions   **2024**
Role: PI; $681,096, NSF (Pending)

CAITLIN: Conversational AI for Technical Interview Learning to Enhance Computing Education 2024
Role: PI; $2.95M, Institute of Education Sciences (Pending)

Designing Large Language Models as a Mental Health Resource for Autistic Adults **2024**
Role: PI; $45,000, World Health Consortium (Funded)

Enhancing the Privacy of Users with Disabilities Through Transparent Web Advertisement **2024**
Role: Co-PI; $75,000, Commonwealth Cyber Initiative (Funded)

Integrating Neurodivergence into the STEM Workforce **2023**
Role: Co-PI; $75,000, Oak Ridge Associated Universities (Funded)

Empathy-Driven Human-AI System for Countering Negative-Self Talk for Autistic Adults **2023**
Role: PI; $25,000, Center for Human-Computer Interaction, Virginia Tech (Funded)

Understanding Linguistic Patterns in COVID-19 Public Health Discourse **2021**
Role: PI; $15,000, Center for Peace Studies and Violence Prevention, Virginia Tech (Funded)

ACM CHI Best Paper Honorable Mention **2020**

Kling Endowed Memorial Fellowship **2020**

Doctoral Consortium Fellowship **2019**

Roberta Ellen Lamb Memorial Fellowship **2018**

Graduate Dean's Recruitment Fellowship **2015**

PUBLICATIONS

Journals and Conference Papers

† Indicates first authorship by PhD/MS student advised by me as the principal investigator

[P18] **Counterquill: Investigating the Potential of Human-AI Collaboration in Online Counterspeech Writing**
Xiaohan Ding, Kaike Ping, Uma Sushmitha Gunturi, Buse Carik, Ms Sophia Stil, Lance T Wilhelm, Taufiq Daryanto, Dr James Hawdon, Sang Won Lee, and **Eugenia H. Rho**†.
ACM Transactions on Computer-Human Interaction (TOCHI), 2025 (Under Review)

[P17] **Exploring Large Language Models Through a Neurodivergent Lens: Use, Challenges, Community-Driven Workarounds, and Concerns**
Buse Carik, Kaike Ping, Xiaohan Ding, **Eugenia H. Rho**†.
ACM International Conference on Supporting Group Work (GROUP), 2025 (Accepted)

[P16] **Conversate: Supporting Reflective Learning in Interview Practice Through Interactive Simulation and Dialogic Feedback**
Taufiq Daryanto, Xiaohan Ding, Lance T Wilhelm, Sophia Stil, Kirk Knutsen, and **Eugenia H. Rho†**.
ACM International Conference on Supporting Group Work (GROUP), 2025 (Accepted)

[P15] **Perceiving and Countering Hate: The Role of Identity in Online Responses**
Kaike Ping, James Hawdon, **Eugenia H. Rho†**.
ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW), 2025 (Accepted)

[P14] **Behind the Counter: Exploring the Motivations and Barriers of Online Counterspeech Writing and the Potential for AI-Mediated Assistance**
Kaike Ping, Anisha Kumar, **Eugenia H. Rho†**.
ACM Transactions on Computer-Human Interaction (TOCHI), 2025 (Accepted)

[P13] **Leveraging Prompt-Based Large Language Models: Predicting Pandemic Health Decisions and Outcomes Through Social Media Language**
Xiaohan Ding, Buse Carik, Uma Gunturi, Valerie Reyna, **Eugenia H. Rho†**.
ACM Conference on Human Factors in Computing Systems (CHI), 2024

[P12] **A Design Space for Intelligent and Interactive Writing Assistants**
Mina Lee, Katy Ilonka Gero, John Joon Young Chung, Simon Buckingham Shum, Vipul Raheja, Hua Shen, Subhashini Venugopalan, Thiemo Wambsganss, David Zhou, Emad A. Alghamdi, Tal August, Avinash Bhat, Madiha Zahrah Choksi, Senjuti Dutta, Jin L.C. Guo, Md Naimul Hoque, Yewon Kim, Simon Knight, Seyed Parsa Neshaei, Agnia Sergeyuk, Antonette Shibani, Disha Shrivastava, Lila Shroff, Jessi Stark, Sarah Sterman, Sitong Wang, Antoine Bosselut, Daniel Buschek, Joseph Chee Chang, Sherol Chen, Max Kreminski, Joonsuk Park, Roy Pea, **Eugenia H. Rho**, Shannon Zejiang Shen, Pao Siangliulue.
ACM Conference on Human Factors in Computing Systems (CHI), 2024

[P11] **Why Did You Post That GIF? Understanding the Relationship between User Identity and Self-Expression through GIFs on Social Media**
Marx B Wang, Md Momen Bhuiyan, **Eugenia H. Rho**, Kurt Luther, Sang Won Lee.
ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW), 2024

[P10] **Understanding the Linguistic Signature of Acts and Recalls of Online Racial Microaggressions through Interpretable NLP**
Uma Gunturi, Anisha Kumar, Xiaohan Ding, **Eugenia H. Rho†**.
ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW), 2024

[P9] **Escalated Police Stops of Black Men Are Linguistically and Psychologically Distinct in Their Earliest Moments**
Eugenia H. Rho, Maggie Harrington, Yuyang Zhong, Reid Pryzant, Nicholas P. Camp, Dan Jurafsky, Jennifer L. Eberhardt.
Proceedings of the National Academy of Sciences (PNAS), 2023

[P8] **Same Words, Different Meanings: Interpretable Predictions of Polarization Trends in Broadcast Media Language and Granger Causal Effects on Online Public Discourse**
Xiaohan Ding, Mike Horning, **Eugenia H. Rho†**.
AAAI Conference on Web and Social Media (ICWSM), 2023

[P7] **Cultural Differences in the Effects of Contextual Factors and Privacy Concerns on Users' Privacy Decision on Social Networking Sites**
Yao Li, **Eugenia H. Rho**, and Alfred Kobsa.
Journal of Behavior and Information Technology, 2020

[P6] **Political Hashtags and the Lost Art of Democratic Discourse**
Eugenia H. Rho and Melissa Mazmanian.
ACM Conference on Human Factors in Computing Systems (CHI), 2020, Best Paper Honorable Mention

[P5] **Hashtag Burnout? An Experimental Study Investigating How Political Hashtags Shape Reactions to News Content**
Eugenia H. Rho and Melissa Mazmanian.
ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW), 2019

[P4] **Moral and Affective Differences in U.S. Immigration Policy Debate on Twitter**
Ted Grover, Elvan Bayraktaroglu, Gloria Mark, and **Eugenia Ha Rim Rho**.
Journal of Computer Supported Cooperative Work Vol 28, Issue:3-4, 2019, p. 317-355

[P3] **Fostering Civil Discourse Online: Linguistic Behavior in Comments of #MeToo Articles Across Political Perspectives**
Eugenia H. Rho, Gloria Mark, and Melissa Mazmanian.
ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW), 2018

[P2] **Differences in Online Privacy & Security Attitudes Based on Economic Living Standards: A Global Study of 24 Countries**
Eugenia H. Rho, Alfred Kobsa, Carolyn Nguyen.
Proceedings of the European Conference on Information Systems (ECIS), 2018

[P1] **Class Confessions: Restorative Properties in Online Experiences of Socioeconomic Stigma**
Eugenia H. Rho, Oliver L. Haimson, Nazanin Andalibi, Melissa Mazmanian, and Gillian R. Hayes.
ACM Conference on Human Factors in Computing Systems (CHI), 2017

Workshop Papers

[W6] **ToxVis: Enabling Interpretability of Implicit vs. Explicit Toxicity Detection Models with Interactive Visualization**
Uma Gunturi, Xiaohan Ding, Eugenia H. Rho. *ACM Conference on Human Factors in Computing Systems (CHI)*, 2023

[W5] **Real Memes In-The-Wild: Explainable Classification of Hateful vs. Non-Hateful Memes**
Rohan Leekha, Eugenia H. Rho. *ACM Conference on Human Factors in Computing Systems (CHI)*, 2023

[W4] **Quality of Democratic Discourse in the Age of Political Hashtags and Social Media News Consumption**
Eugenia H. Rho. *ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW)*, 2020

[W3] **Intelligent Agents in Everyday Settings: Leveraging a Multi-Methods Approach**
Krithika Jagannath, Eugenia H. Rho. *ACM Conference on Human Factors in Computing Systems (CHI)*, 2018

[W2] **Contextual Impact on SNS Users' Privacy Decisions: A Cross-Cultural Study**
Yao Li, Eugenia H. Rho. *ACM Conference on Human Factors in Computing Systems (CHI)*, 2018

[W1] **Privacy Norms in the Context of Connected & Self-Driving Cars**
Eugenia H. Rho. *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, 2017

INVITED TALKS

VTL x Speaker Series, Linguistics Seminar   **2024**
Virginia Tech, February 2024

AI-Driven Language Analysis: Predicting Real-World Outcomes in Public Health Trends and Law Enforcement Practices   **2023**
Sanghani Center for Artificial Intelligence & Data Analytics, Virginia Tech, December, 2023

EmotionAIze: Coping with Negative-Self Talk for Autistic Individuals Through Empathy-Driven LLM Interactions   **2023**
Virginia Tech Center of Autism Research (VTCAR), November, 2023

Words Matter: How Language Choices Predict Societal Trends and Outcomes in Media, Health and Policing   **2023**
Johns Hopkins Center for Language and Speech Processing (CLSP) Seminar, Johns Hopkins CS NLP Group, Johns Hopkins Whiting School of Engineering, November 2023

Supporting Mental Health in Neurodiverse Communities: Enhancing Large Language Model Accessibility through Multimodal Human-AI Interactions   **2023**
Institute for Creativity, Arts, & Technology (ICAT) Playdate, Virginia Tech, October 2023

Artificial Intelligence @Internet Archive: Research in the Age of Artificial Intelligence   **2023**
Internet Archive, October 2023

Influence of Officer Speech in Traffic Stop Outcomes for Black Drivers **2021**
Center for Human-Computer Interaction, Department of Computer Science, Virginia Tech), 2021

Design of Online Environments and the Quality of Democratic Discourse At-Scale **2021**
Department of Computer Science, Stanford University, Human-Computer Interaction Lecture: People, Computers & Design Seminar (Host: Michael Bernstein), 2021

Department of Computer Science **2020**
Virginia Tech, 2020

Human Centered Design & Engineering **2020**
University of Washington, 2020

School of Information **2020**
George Mason University, 2020

Understanding Consequences of Brevity in Online Communication Through a Controlled Experiment with Social Media Users **2019**
Invited guest lecture for Critical Writing on Information Technology (INF 131), Irvine, CA, 2019

Usability of Interactive Systems **2017**
Invited Guest lecture for Human Computer Interaction (INF 131), Irvine, CA, 2017

Motivations and Barriers in Using Facebook Live Across Closed Mental Health Support Groups on Facebook **2017**
Invited talk for KAIST Interaction (KIX) Lab, Korea Advanced Institute of Science and Technology, Daejeon, South Korea, 2017

PRESS

AI Tool Predicts Whether Online Health Misinformation Will Cause Real-World Harm **2024**
Scientific American, May 2024

Study Traces an Infectious Language Epidemic **2024**
Virginia Tech News, May 2024

Be Careful What You Feed Your Head **2024**
Forbes, February 2024

AI—the Good, the Bad, and the Scary **2023**
Virginia Tech Engineering News, November 2023

Two Networks, Two Realities, One Big Problem **2023**
Virginia Tech News, August 2023

New Study: Officers' First Communication with Black Drivers Can Determine Traffic Stop Outcome **2023**
NPR Atlanta, June 2023

Interview with Eugenia Rho on Police Escalation   **2023**
CNN Tonight, CNN, June 2023

A Study Found a Racial Bias During Police Traffic Stops and Police Orders   **2023**
KCBS Radio, June 2023

Study: Officer's First 45 Words in Traffic Stop Could Predict Outcome   **2023**
Scripps News, June 2023

For Black Drivers, a Police Officer's First 45 Words Are a Sign of What's to Come **2023**
NPR Radio, May 2023

Political Hashtags Make People Less Likely to Believe the News   **2019**
Radio New Zealand, December 2019

Hashtag Fatigue: How #Metoo Turns People off From the News   **2019**
Newsweek Japan, December 2019

How Political Hashtags Make Discussion More Partisan   **2019**
KCBS Radio, November 2019

Hashtag Haven: Why People Distrust Social Media Clickbait   **2019**
Yahoo Finance, November 2019

Political Hashtags Like #Metoo and #Blacklivesmatter Make People Less Likely to Believe the News **2019**
The Conversation, November 2019

Political Hashtags Like #Metoo and #Blacklivesmatter Make Some People Doubt the Stories They're Attached To **2019**
Nieman Journalism Lab, Harvard University, November 2019

TEACHING EXPERIENCE

Instructor, Virginia Tech, Department of Computer Science

CS 3724 Introduction to Human-Computer Interaction   **2024**
Spring 2024

CS 5914 Human AI Interaction Powered by Large Language Models   **2023**
Fall 2023

CS 6724 Human AI Interaction   **2023**
Spring 2023

CS 5984 Computational Social Science   **2022**
Spring 2022

Teaching Assistant, University of California, Irvine, Department of Informatics

INF 288 Master of Human-Computer Interaction & Design Capstone Project   **2020**
Summer 2020

INF 281 User Needs Analysis (38 students)   **2019**
Fall 2019

ICS 139 Critical Writing on Information Technology (41 students)   **2019**
Summer 2019

ICS 5 Global Disruption & Information Technology (249 students)   **2018**
Spring 2018

ICS 166 Game Design (30 students)   **2017**
Spring 2017

INF 131 Human Computer Interaction (197 students)   **2017**
Winter 2017
Led a 1-hour weekly discussion seminar with 80 students

INF 131 Human Computer Interaction (119 students)   **2016**
Fall 2016
Led two 1-hour weekly discussion seminars with 60 students in each section

SERVICE

Academic Service

Search Committee   **2022– 2024**
Virginia Tech Computer Science

Graduate Admissions Committee   **2021**
Virginia Tech Computer Science

Grant Review

National Science Foundation Panel   **2022-2024**

Program Committee (Associate Chair)

  ACM Conference on Computer Supported Cooperative Work (CSCW)   **2022, 2024**
  Conference on Empirical Methods in Natural Language Processing (EMNLP)   **2022**
  ACM Conference on Human Factors in Computing Systems (CHI) Late Breaking Work   **2020**

Paper Reviewer

  ACM Conference on Computer Supported Cooperative Work (CSCW)   **2016–2023**
  ACM Conference on Human Factors in Computing Systems (CHI)   **2017–2023**
  AAAI Conference on Web and Social Media (ICWSM)   **2021**
  Proceedings of the European Conference on Information Systems (ECIS)   **2021**
  ACM Designing Interactive Systems Conference (DIS)   **2018**

Student Volunteer

  ACM Conference on Human Factors in Computing Systems (CHI)   **2018**
  ACM Conference on Computer Supported Cooperative Work (CSCW)   **2017**

Member

  ACM Special Interest Group on Computer-Human Interaction   **2015 – Present**

| Association for Computational Linguistics | 2020 – Present |

ADVISING AND MENTORSHIP

| **Faculty Panelist for ACM Computer-Human Interaction Mentoring (CHIMe) Symposium Workshop** | **2021** |

| **Faculty Research Talk, Graduate Student Orientation, Virginia Tech** | **2021** |

| **Women in Information & Computer Sciences (WICS) at UC Irvine** | **2016 – Present** |

| **"Explore ICS Program" – a 5-month mentorship program for introducing female undergraduate/undeclared students to Information & Computer Science (ICS) majors** | **2016 – 2017** |

| **Panelist, Internship Experience with Tech Industries, UCI Informatics** | **2017** |

| **Graduate Student Panelist, Orientation for Incoming PhD Students at UCI Informatics** | **2017** |

| **Treasurer, Informatics Graduate Student Association (IGSA)** | **2016** |

Student Advising

Graduate Advisees at Virginia Tech (2021 – Present)

Xiaohan Ding (Ph.D., Computer Science)
Kaike Ping (Ph.D., Computer Science)
Buse Carik (Ph.D., Computer Science)
Lance Wilhelm (Ph.D., Computer Science)
Taufiq Daryanto (Ph.D., Computer Science)
Sophia Stil (M.S., Computer Science)
Anisha Kumar (M.S., Computer Science)
Uma Gunturi (M.S., Computer Science)
   Torgersen Research Excellence Award Finalist, currently at IBM Research
Rohan Leekha (M.S., Computer Science)
   currently at MIT Lincoln Laboratory

Undergraduate Advisees at Virginia Tech (2021 – Present)

Samridhi Roshan (B.S., Computer Science)
Eunice Hong (B.S., Computer Science)

Thesis Committee

Swanand Vaishampayan (Ph.D., Computer Science)
Sukrit Venkatagiri (Ph.D., Computer Science)
Bill Ingram (Ph.D., Computer Science)
Aman Ahuja (Ph.D., Computer Science)
Satvik Chekuri (Ph.D., Computer Science)

Anirban Mukhopadhyay Ph.D., Computer Science)
Marx Wang (M.S., Computer Science)
Muskan Gupta (M.S., Computer Science)
Lucas Franke (M.S., Computer Science)
Hulya Dogan (M.S., Computer Science)