Ruijia (Regina) Cheng

Researcher in Human-computer Interaction (HCI)
rcheng6@uw.edu | https://reginachangzhou.github.io

Education

09/18 – 08/23 (exp.) **University of Washington (UW)**
PhD candidate in Human Centered Design & Engineering (HCDE)
Topics: CSCW, Human-Data Interaction, Human-AI Collaboration, Learning & Creativity Support
Advisors: Benjamin Mako Hill, Jennifer Turns

09/18 – 03/21 **University of Washington**
Master of Science in Human Centered Design & Engineering

09/14 – 03/18 **University of California, San Diego (UCSD)**
Magna Cum Laude
Bachelor of Science in Cognitive Science with a Specialization in Computation
Bachelor of Science in Mathematics: Applied Science

Experiences

09/18 – present **Department of Human Centered Design & Engineering, University of Washington**
Graduate Research Assistant

- Led empirical and design research and published in top-tier HCI venues.
- Designed and conducted research to support data science collaboration, data literacies, visual block-based programming, novice participation, and creative feedback exchange in online communities.

09/21– 12/21 **Dataminr**
PhD Research Intern in HCI/AI

- Conducted research related to human-AI collaboration in text summarization.
- Collaborated with machine learning and NLP scientists and engineers.

06/21– 09/21 **Community Data Science Collective Lab, Northwestern University**
Research Intern

- Led a large-scale quantitative study on data literacy and social media discussion about COVID-19.
- Built publishable datasets of cross-platform social media activities about COVID-19.

03/21 – 06/21 **Microsoft Corporation** via i2e LLC
Interaction Scenario Design Intern, mentor: Jonathan Grudin

- Designed and developed user scenarios and interaction guides for K-12 online search technology.

06/20 – 09/20 **Facebook Inc.**
UX Research Intern

- Designed and conducted interview, survey and user log analysis studies on video recommendation.

- Collaborated effectively with cross-functional teams and contributed to product development.

10/16 – 01/18 **Design Lab, University of California, San Diego**
Undergraduate Research Assistant, advisors: Steven Dow, Joel Chan, Jim Hollan

- Led survey and online experiment studies on crowd creativity and problem framing.
- Conducted thematic analyses and topic modeling on narrative patterns in computational notebooks.

Publications

Peer-reviewed Publications

1. **Cheng, R**., Dasgupta, S., Hill, B. How Interest-Driven Content Creation Shapes Opportunities for Informal Learning in Scratch: A Case Study on Novices' Use of Data Structures. 2022. Conditionally accepted by the ACM Conference on Human Factors in Computing Systems (CHI 2022).
2. **Cheng, R.**, Zachry, M. Building Community Knowledge in Online Data Science Competitions: Motivation, Practices and Challenges. 2020. Proceedings of the ACM Human Computer Interaction, Computer Supported Cooperative Work and Social Computing Conference (CSCW 2020).
3. **Cheng, R.**, Zeng, Z., Liu M., Dow, S. Critique Me: Exploring How Creators Publicly Request Feedback in an Open Online Community. 2020. Proceedings of the ACM Human Computer Interaction, Computer Supported Cooperative Work and Social Computing (CSCW 2020).

Papers Under Review

4. **Cheng, R.**, Smith-Renner, A., Zhang, K., Tetreault, J., Jaimes, A. Mapping the Design Space of Human-AI Interaction in Text Summarization. 2022. Under review for the North American Chapter of the Association for Computational Linguistics Special Theme: Human-Centered Natural Language Processing (NAACL 2022)
5. Lai, V., Smith-Renner, A., Zhang, K., **Cheng, R.**, Zhang, W., Tetreault, J., Jaimes, A. An Exploration of Post-Editing Effectiveness in Text Summarization. 2022. Under review for the North American Chapter of the Association for Computational Linguistics Special Theme: Human-Centered Natural Language Processing (NAACL 2022)
6. **Cheng, R**., Hill, B. Many Destinations, Many Pathways: A Quantitative Analysis of Legitimate Peripheral Participation in Scratch. 2022. Under review for the ACM Human Computer Interaction, Computer Supported Cooperative Work and Social Computing (CSCW 2022).
7. **Cheng, R**., Frens, J. Feedback Exchange and Online Affinity: A Case Study of Online Fanfiction Writers. 2022. Under review for the ACM Human Computer Interaction, Computer Supported Cooperative Work and Social Computing (CSCW 2022).

Short Papers, Posters and workshops

8. **Cheng, R**., Druga, S., Gan, E., Hill, B., Bhargava, R., Clegg, T., D'Ignazio, C., Kafai, Y., Lee, V., Matuk, C., Rubin, A. Imagining Future Design of Tools for Youth Data Literacies. 2021. Workshop in the 2021 Connected Learning Summit.
9. **Cheng, R.**, De Castro, J., Dow, S., Chan, J. 2018. An Exploratory Study of Problem Framing in Distributed Collaborative Design. Working Paper in the ACM Group Conference (Group 2018).
10. Singh, F., Smith, A., Dudeck, N., Herrera, E., Lee, J., Yang, Z., **Cheng, R.**, Pineda, J. 2016. A Pilot Study to Assess the Effects of EEG-Gamma Neurofeedback on Working Memory in Schizophrenia Patients. Poster in the Society for Neuroscience 2016 Annual Conference (SfN 2016).

Invited Talks

2021 "Imagining Future Design of Tools for Youth Data Literacies", workshop host at the Connected Learning Summit.

2021 "Social Contagion and Collective Intelligence", presentation at the Summer Institute in Computational Social Science – Beijing.

2020 "Building Community Knowledge in Online Competitions: Motivation, Practices and Challenges", paper presentation at the CSCW conference.

2020 "Critique Me: Exploring How Creators Publicly Request Feedback in an Open Online Community", paper presentation at the CSCW conference.

2019 "Feedback-Seeking in Online Fanfiction Communities", poster presentation at the HCDE Research Showcase.

2018 "An Exploratory Study of Problem Framing in Distributed Collaborative Design", paper presentation at the Group conference.

2017 "Plug-N-Talk: An Affordable Solution to Hearing Loss", finalist presentation at the 2nd UCSD ECE Annual Design Competition.

2016 "A Pilot Study to Assess the Effects of EEG-Gamma Neurofeedback on Working Memory in Schizophrenia Patients", poster presentation at the SfN conference.

Skills

Programming: Python, R, JavaScript, React, Node.js, SQL, Spark, MATLAB**,** HTML, CSS

Qualitative research: interview, ethnography, usability testing, user scenario, grounded theory, thematic analysis

Quantitative research: survey, A/B testing, experiment design, statistical modeling, machine learning, NLP

Design: Photoshop, Figma, InDesign, Blender, paper prototyping

Teaching

Guest Lectures

2019, 20 "A Crash Course on Statistics for Usability Testing", HCDE 417 Usability Testing, University of Washington

Research Group Leader

2021 HCDE Directed Research Group: "Supporting Critical Capacities in Data Science through Online Interactions"

Teaching Assistant

2020, 21 HCDE 493 Capstone Project, University of Washington. *Students won Best Design & Engineering awards.*

2020, 21 HCDE 492 Capstone Project Planning, University of Washington.

2020 HCDE 519 Qualitative Methods, University of Washington.

2019 HCDE 417 Usability Testing, University of Washington.

2019 HCID 430 Formative UX Research Studio, University of Washington.

Mentoring

2019 Ziwen Zeng, Undergrad Summer Intern Student. *Now graduate student at Carnegie Mellon University.*

2019 Maysnow Liu, Undergrad Summer Intern Student.

Service

2021 DUB Doctoral Colloquium organizer

2021 ACM CHI reviewer

2020, 21 ACM CSCW reviewer

2020 ACM IDC reviewer

2020 UW Community Data Science Workshop mentor

2019, 20 ACM CHI Late Breaking Work reviewer

2019 UW HCDE Master program application reviewer