

# RUOXI (ANNA) SHANG

[rxshang@uw.edu](mailto:rxshang@uw.edu) | [ruoxishang.com](http://ruoxishang.com)

## Education

### UNIVERSITY OF WASHINGTON

Ph.D. Student in Human-centered Design and Engineering  
Sep 2020 – Present

### UNIVERSITY OF CALIFORNIA, BERKELEY

B.A. in Applied Mathematics, Statistics (Concentration: Data Science)  
Aug 2016 – May 2020

## Research Interests

Human-AI Interaction, Human-centered Explainability, Trust, Generative AI, Data science and Programming Support, Data Visualization, Feedback & Research Assistance

## Research & Work Experience

### UNIVERSITY OF WASHINGTON

Research Assistant  
Sep 2020 – Present

Advisors: [Gary Hsieh](#), [Chirag Shah](#)

- Led research projects including network analysis of online fanfiction communities, data-driven HCI research trend assessment between academia and industry, mix method studies on human-centered explainable recommender systems, and the development and validation of affective and cognitive trust scale towards AI.

### MIRCOSOFT RESEARCH

Research Intern in the [VIDA team](#)

Advisors: Steven Drucker, Bongshin Lee, Dave Brown

Jun 2023 – Present

- Led a key research project explored the use Large Language Models (LLMs) to enable data science novices to operationalize their data-driven decision-making intent.
- Conducted a user study to assess data analysts' understanding and verification of analyses output generated by state-of-the-art LLMs.

### TRUERA

Data Science and UX Research Intern

Mentors: Mantas Lilis, Joshua Noble, Justin Lawyer

Jul 2022 – Sep 2022

- Designed and conducted an interview study to understand how professional data scientists in the field approach performance debugging of Machine Learning (ML) classification and regression models.
- Collaborated with designers and ML engineers to build guided workflows that streamline the diagnostic process for ML models.

### CENTER FOR LONG-TERM CYBERSECURITY | UC BERKELEY

Research Assistant

Advisor: [Nick Merrill](#)

May 2019 – May 2020

- Leveraged pre-trained Computer Vision models on ImageNet to mine feature distributions from the Cybersecurity Imagery Dataset, comprising two years of Google Image Search results.
- Conducted a temporal exploratory data analysis on the dataset to uncover how media representations of cybersecurity have changed over time.

### BERKELEY INSTITUTE FOR DATA SCIENCE | UC BERKELEY

Research Assistant

Advisor: [Andreas Zoglauer](#)

Jan 2019 – Dec 2019

- Engineered an advanced data analysis pipeline for Compton telescopes such as COSI and AMEGO by implementing a 3D convolutional neural network using TensorFlow, inspired by VoxNet architecture.
- Innovated network layout optimizations, resulting in an 82% reduction in RMS Angular Deviation, significantly enhancing prediction accuracy.

## Publications

### *In Submission*

**Shang, R.**, Mallari, K., Au Yeong, W. B., Yasuhara, K., Tang, A., & Hsieh, G.. Rethinking Teaching Evaluation Reports: Designing AI-transformed Student Feedback for Instructor Engagement. In submission to CSCW 2025.  
Gu, K., **Shang, R.**, Jiang, R., Kuang, K., Lin, R., Lyu, D., Mao, Y., Pan, Y., Wu, T., Yu, J., Zhang, Y., Zhang, T. M., Zhu, L., Merrill, M. A., Heer, J., & Althoff, T. BLADE: Benchmarking Language Model Agents for Data-Driven Science. In submission to EMNLP 2024.

### *Peer-reviewed publications*

**Ruoxi Shang**, Gary Hsieh, Chirag Shah. Trusting your AI Agent Emotionally and Cognitive: Development and Validation of a Semantic Differential Scale for AI Trust. (AIES 2024).  
Ken Gu, **Ruoxi Shang**, Tim Althoff, Chenglong Wang, Steven M. Drucker. How Do Analysts Understand and Verify AI-Assisted Data Analyses? In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24). [Arxiv](#)  
Donghoon Shin, Soomin Kim, **Ruoxi Shang**, Joonhwan Lee, and Gary Hsieh. IntroBot: Exploring the Use of Chatbot-assisted Familiarization in Online Collaborative Groups. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)  
**Ruoxi Shang**, Kevin Feng, Chirag Shah. Understanding Lay Users' Needs of Counterfactual Explanations for Everyday Recommendations. 2022. ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT 2022).  
De Clercq, Djavan, **Ruoxi Shang** et al. Machine learning powered software for accurate prediction of biogas production: A case study on industrial-scale Chinese production data. Journal of Cleaner Production, 218 (2019): 390-399.  
De Clercq, Djavan, Zongguo Wen, Fan Fei, Luis Caicedo, Kai Yuan, and **Ruoxi Shang**. Interpretable machine learning for predicting biomethane production in industrial-scale anaerobic co-digestion. Science of The Total Environment (2019): 134574.  
Heng Zhou, Zhijun Fang, Yongbin Gao, Bo Huang, Cengsi Zhong, **Ruoxi Shang**. Feature fusion network based on attention mechanism for 3D semantic segmentation of point clouds. Pattern Recognition Letters 133 (2020): 327-333.

### *Short Papers & Posters*

Tianying Chen, **Ruoxi Shang**, Steven Moore, Laura Dabbish. Leveraging Generative AI and Human Collaboration in Peer-Feedback. 2023. Generative AI and HCI workshop in the ACM Conference on Human Factors in Computing Systems (CHI 2023).  
Ather Sharif, Ploypilin Pruekcharoen, Thrisha Ramesh, **Ruoxi Shang**, Spencer Williams, Gary Hsieh. "What's going on in Accessibility Research?" Frequencies and Trends of Disability Categories and Research Domains in Publications at ASSETS. 2022. In The 24th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '22). Association for Computing Machinery, New York, NY, USA.  
**Ruoxi Shang**, Zile Xiao, Jenna Frens, and Cecilia Aragon. Giving and Receiving: Reciprocal Review Exchange in Online Fanfiction Communities. 2021. *Companion Publication of the 2021 Conference on Computer Supported Cooperative Work and Social Computing* (pp. 171-174).  
Niamh Froelich, Arthur Liu, **Ruoxi Shang**, Zile Xiao, Travis Neils, Jenna Frens, and Cecilia Aragon. Reciprocity in Reviewing on Fanfiction.net. 2021. *International Conference on Human-Computer Interaction*. Springer, Cham, 2021.  
**Ruoxi Shang**, A. Zoglauer, Rapid gamma-ray burst localization aboard the e-Astrogam satellite using a 3D convolutional neural network. Poster presented at Bay Area Machine Learning Symposium 2019, Oct 16, San Francisco, CA.

### *Academic Services*

2024 Reviewer, ACM CHI, ACM CSCW, ACM DIS  
2023 Reviewer, AIEDLLM1 (Empowering Education with LLMs)

### *Media Coverage*

[One year later, ChatGPT is still alive and kicking](#). TechCrunch. Kyle Wiggers. Nov 30, 2023.  
[What Color Is Cybersecurity?](#) Forbes News. Sean Lawson. Nov 14, 2019.

### *Awards*

ACM Travel Grant for FAccT 2022 (2022)  
HCDE Doctoral Student Research Grant, University of Washington (2022)  
Edward Frank Kraft Scholarship, University of California, Berkeley (2017)

### *Teaching & Mentoring Experience*

Co-instructor & Project Mentor for HCDE 518 User-Centered Design Class Project Teams Fall 2022 and 2023, HCDE 410 Human-Data Interaction Spring 2023  
TA and Project Mentor for [HCDE Undergraduate Capstone Project teams](#) Winter & Spring 2022  
TA for HCDE 411 Data Visualization Fall 2021  
TA for HCDE MS Capstone Project Class Spring 2021

## ***Skills***

**Programming & Data Science:** Python, R, JavaScript, TypeScript, JupyterLab Extensions, React, HTML, CSS,

Java, SQL, Data Visualization, Machine Learning, Deep Learning, NLP

**Quantitative Methods:** Experimental Design, Survey Design, Statistical Analysis

**Qualitative Methods:** Interview, Survey, Thematic Analysis, Grounded Theory, Usability Testing

**Design:** Figma, Wireframing, Prototyping, User Journey Mapping