# RUOXI (ANNA) SHANG

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## **EDUCATION**

## UNIVERSITY OF WASHINGTON

Sep 2020 – Present

Ph.D. Candidate in Human-centered Design and Engineering

# UNIVERSITY OF CALIFORNIA, BERKELEY

May 2020

B.A. in Applied Mathematics, Statistics (Concentration: Data Science)

## RESEARCH INTERESTS

LLM Alignment • AI for Science • Responsible AI • Human-AI Interaction

#### RESEARCH & WORK EXPERIENCE

#### UNIVERSITY OF WASHINGTON

Sep 2020 - Present

Research Assistant

Advisors: Gary Hsieh, Chirag Shah

 Led research on several projects involving pluralistic profile generation in AI-assisted peer review, designing AI-powered instructional feedback and recap experiences, designing generative short-form videos for science communication, multi-agent brainstorming for creativity, evaluating and measuring trust in AI

#### MICROSOFT RESEARCH

Jun 2025 – Sep 2025

Research Intern with Inclusive Futures and Future Experiences teams

Advisors: Denae Ford Robinson, Ed Cutrell

• Built and validated a robust data and theory grounded pipeline that generates a personal social profile. This system can enhance alignment between generative agent's communication style with any individual through profiling and auditing in downstream real-life scenarios.

#### MICROSOFT RESEARCH

 $Jun\ 2023-Sep\ 2023$ 

Research Intern in the VIDA team

Advisors: Steven Drucker, Bongshin Lee, Dave Brown

Led foundational research for using generative AI to re-envision multi-modal end-to-end data-driven
decision making. Conducted a user study to assess data analysts' understanding and verification of
analyses output generated by state-of-the-art LLMs.

 $\mathbf{TRUERA} \qquad \qquad \mathbf{Jul} \ 2022 - \mathbf{Sep} \ 2022$ 

User Research Intern

Mentors: Mantas Lilis, Joshua Noble, Justin Lawyer

• Improved the Machine Learning (ML) model (e.g. classification, regression) debugging experience for data scientists by leading research and designing product guided workflows from research insights for TruEra ML Model Diagnostics. Identified the top pain points in real debugging practice and prioritized fixes, driving 0 to 1 product exploration during after new funding round and shaped the roadmap.

#### **PUBLICATIONS**

#### In Submission

Ruoxi Shang, Dan Marshall, Edward Cutrell, Denae Ford Robinson. Mimetic Alignment with PRISMA: Auditing of AI-inferred Personal Profiles.

Meziah Ruby Cristobal\*, Hyeonjeong Byeon\*, Tze-Yu Chen\*, **Ruoxi Shang**\*, Donghoon Shin\*, Ruican Zhong\*, Tony Zhou\*, Gary Hsieh. PaperTok: Exploring the Use of Generative AI for Creating Short-form Videos for Research Communication. [\*]: Equal Contribution

Ruoxi Shang, Ruican Zhong, Yuren Pang, David McDonald, Chirag Shah, Gary Hsieh. Synthetic Diversity: How Researchers Perceive and Engage with LLM-Generated Diverse Research Feedback.

Ruoxi Shang, Lei Cai, Courtney Cho, Chirag Shah, Gary Hsieh. Creative Stimuli for Multi-Agent LLM Brainstorming.

#### Peer-reviewed Publications

Ruoxi Shang, Keri Mallari, Wei Bin Au ng, Ken Yasuhara, Anthony Tang, Gary Hsieh. Rethinking Teaching Evaluation Reports: Designing AI-transformed Student Feedback for Instructor Engagement. In Proceedings of the 2025 ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2025).

Ken Gu, **Ruoxi Shang**, Ruien Jiang, Keying Kuang, Richard-John Lin, Donghe Lyu, Yue Mao, Youran Pan, Teng Wu, Jiaqi an Yu, Yikun Zhang, Tianmai M. Zhang, Lanyi Zhu, Mike A Merrill, Jeffrey Heer, Tim Althoff. BLADE: Benchmarking Language Model Agents for Data-Driven Science. *In Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing* (EMNLP 2024).

Ruoxi Shang, Gary Hsieh, Chirag Shah. Trusting your AI Agent Emotionally and Cognitively: Development and Validation of a Semantic Differential Scale for AI Trust. In Proceedings of the 2024 AAAI/ACM Conference on AI, Ethics, and Society (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 2024).

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 2023).

Ruoxi Shang, Kevin Feng, Chirag Shah. Understanding Lay Users' Needs of Counterfactual Explanations for Everyday Recommendations. *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. *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. *The 24th International ACM SIGACCESS Conference on Computers and Accessibility* (ASSETS '22).

Ruoxi Shang, Zile Xiao, Jenna Frens, and Cecilia Aragon. Giving and Receiving: Reciprocal Review Exchange in Online Fanfiction Communities. *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. *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

2025 ACM Collective Intelligence Demo and Poster Chair

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**

AIES Student Travel Award sponsored by NSF	2024
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

Teaching Assistant & Project Mentor for HCDE 518 User-Centered Design Class Project Teams Fall 2022, 2023, 2024

Teaching Assistant for 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