

# Alice Qian Zhang

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## RESEARCH INTERESTS

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AI Safety, Content Moderation, Well-being, Social Computing, Responsible AI

## EDUCATION

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**Carnegie Mellon University**, Pittsburgh, PA, USA

Doctor of Philosophy

August 2024 - In Progress

**University of Minnesota**, Minneapolis, MN, USA

Bachelor of Science in Computer Science

September 2020 — May 2024

Cumulative GPA: 3.867/4.00

## RESEARCH EXPERIENCE

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**Principal Investigator, Advisor: Dr. Hong Shen and Dr. Laura Dabbish**

*Carnegie Mellon University*

*Exploring Transparency in Responsible AI Crowd Work*

Pittsburgh, PA

August 2024 — Present

- Investigated crowdwork requester perspectives on designing responsible AI tasks (e.g., a task to label harmful images generated by a large language model)
- Conducted 20-30 qualitative interviews and analyzed interview data

**Lead Organizer**

*Carnegie Mellon University*

*The Human Factor in AI Red Teaming: Perspectives from Social and Collaborative Computing*

San Jose, Costa Rica

January 2024 — Present

- Lead a team of 5 workshop organizers and 6 senior research experts in writing a workshop paper proposal
- Developed workshop agenda and designed intended benefits of the workshop to the CSCW community and broader responsible AI research community

**Research Assistant, Advisors: Dr. Stevie Chancellor and Dr. Jina Suh**

*University of Minnesota*

*Responsible AI Crowdsourcing Support: Co-designing Risk Disclosure*

Minneapolis, Minnesota

September 2023 — Present

- Manually scraped 1000 Amazon Mechanical Turk Human Intelligence Tasks (HITs)
- Qualitatively coded and labeled HITs based on the type of psychological risk disclosed (i.e. profanity, violence)

**Research Assistant, Advisor: Dr. Stevie Chancellor**

*University of Minnesota*

*#Pragmatic or #Clinical: Analyzing TikTok Mental Health Videos*

Minneapolis, Minnesota

September 2022 — October 2023

- Adapted unofficial TikTok API to source video and metadata from 19,000+ TikTok posts on mental health by altering Python module code
- Cleaned TikTok post metadata accounting for consistency with encoding, hashtags, and video descriptions
- Conducted feature analysis on 169 hand-labeled videos on descriptive features (i.e. video, textual, creator and author features) and engagement features (i.e. number of likes, plays, shares, and comments)

**Research Intern, Advisors: Dr. Jina Suh and Dr. Judith Amores**

*Microsoft*

*AURA: Amplifying Understanding, Resilience, and Awareness for Responsible AI Content Workers and Red Teamers*

Redmond, Washington

May 2023 — September 2023

- Conducted and analyzed survey of 67 responses and semi-structured interviews with 22 content moderators, data labelers, and red teamers from various organizations to understand challenges content workers face in Responsible AI
- Developed a set of 8 evidence-based recommendations on holistic support for the wellness of content workers in the responsible artificial intelligence space
- Planned and conducted workshops with 14 participants to validate and iterate on recommendations

**Research Assistant, Advisor: Dr. Shagun Jhaver**

*Rutgers University*

*Cleaning Up the Streets: Understanding Motivations, Mental Models, and Concerns of Users Flagging Social Media Posts*

New Brunswick, New Jersey

January 2023 — July 2023

- Conducted 25 semi-structured qualitative interviews with active social media users to examine user experiences with social media flagging interfaces

- Applied interpretative qualitative analysis through open-coding interviews with multiple iterative rounds

**Research Assistant, Advisors: Dr. Amy Zhang and Dr. Shagun Jhaver**

Seattle, Washington

University of Washington

June 2021 — September 2021

*Personalizing Content Moderation on Social Media: User Perspectives on Moderation Choices, Interface Design*

- Implemented Python scripts to source 160,000+ Twitter posts from JSON and CVS files
- Created mock social media user interface with slider, toggle, and word filter features
- Conducted and analyzed 24 semi-structured qualitative interviews to understand end-user preferences for and mental models of personalized content moderation

**Youth Studies Research Assistant, Advisor: Dr. Ross VeLure Roholt**

Minneapolis, Minnesota

University of Minnesota

September 2020 — May 2022

*Exploring Equitable and Community-Building Practices for Youth Leadership in Nonprofit Spaces*

- Examined the skills and experiences necessary for peer facilitators and created a curriculum for youth facilitators
- Published reflections about online education practices in youth programming and university settings

**PUBLICATIONS**

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- [1] Shagun Jhaver, Alice Qian Zhang, Quan Ze Chen, Nikhila Natarajan, Ruotong Wang, and Amy X Zhang. Personalizing content moderation on social media: User perspectives on moderation choices, interface design, and labor. *Proceedings of the ACM on Human-Computer Interaction*, 7(CSCW2):1–33, 2023.
  - [2] Alice Qian Zhang. Youthbank online, a snapshot, Dec 2021. URL: <https://youthprise.org/blog/guest-blog-youthbank-online-a-snapshot/>.
  - [3] Alice Qian Zhang. Youthbank online, collaboration, Dec 2021. URL: <https://youthprise.org/blog/guest-blog-youthbank-online-collaboration/>.
  - [4] Alice Qian Zhang, Ashlee Milton, and Stevie Chancellor. # pragmatic or# clinical: Analyzing tiktok mental health videos. In *Computer Supported Cooperative Work and Social Computing*, pages 149–153. 2023.
  - [5] Alice Qian Zhang, Kaitlin Montague, and Shagun Jhaver. Cleaning up the streets: Understanding motivations, mental models, and concerns of users flagging social media posts. *arXiv preprint arXiv:2309.06688*, 2023. Under review at CHI 2025.
  - [6] Alice Qian Zhang, Ryland Shaw, Jacy Reese Anthis, Ashlee Milton, Emily Tseng, Jina Suh, Lama Ahmad, Ram Shankar Siva Kumar, Julian Posada, Benjamin Shestakofsky, et al. The human factor in ai red teaming: Perspectives from social and collaborative computing. *arXiv preprint arXiv:2407.07786*, 2024.
  - [7] Alice Qian Zhang, Jina Suh, Judith Amores, Mary Gray, and Mary Czerwinski. Aura: Amplifying understanding, resilience, and awareness for responsible ai content workers and red teamers. 2025. Accepted for 2025 ACM Conference On Computer-Supported Cooperative Work And Social Computing.

**GRANTS, AWARDS, AND HONORS**


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<b>Hopper-Dean Scholarship</b>	2023
Funding Amount: \$6,250	
<b>College of Science and Engineering Alumni Society Scholarship</b>	2023-2024
Funding Amount:\$5,000	
<b>Optum Scholarship</b>	2022-2023
Funding Amount: \$5,000	
<b>Iron Range Scholarship</b>	2020-2024
Funding Amount: \$10,618	
<b>Lee S Whitson Scholarship</b>	2020-2024
Funding Amount: \$10,000	
<b>John and Isabel Campbell Scholarship</b>	2020-2024
Funding Amount: \$8,000	
<b>Morton S Katz Scholarship</b>	2020-2024
Funding Amount: \$4,000	
<b>U Promise Scholarship</b>	2020-2024
Funding Amount: \$2,134	
<b>Rotary Scholarship</b>	2020-2021
Funding Amount: \$3,000	
<b>Northfield Lion’s Club Scholarship</b>	2020-2021

Funding Amount: \$1,000

Academic Dean's List Honors

2020-2024

## INDUSTRY EXPERIENCE

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### Software Engineer Intern

*Teachers Insurance and Annuity Association of America*

Charlotte, North Carolina

June 2022 — August 2022

- Developed advanced site functionality and conceptualized next generation user interface prototypes with Angular to automate 80% of client experience with changing investment lineups
- Shared development responsibilities of development with agile team following Scaled Agile Framework

### IT Infrastructure Specialist

*University of Minnesota*

Minneapolis, Minnesota

March 2021 — May 2022

- Led initiative to upgrade 18 research virtual machines for Grouplens research group
- Coordinated software and security upgrade for 255 University Integrated Dell Remote Access Controller (iDRAC) servers
- Coordinated reboot of 100+ university machines
- Configured automated management of 250+ Linux virtual machines using infrastructure tool Foreman and writing Puppet software for academic and research uses
- Documented university approved processes for decommissioning and managing virtual machines

### Growth Marketing Intern

*Candor*

San Francisco, California

February 2021 — September 2021

- Researched and wrote 6 articles on the technology industry with 100% acceptance rate
- Utilized Search Engine Optimization (SEO) tool Clearscope to obtain A+ SEO grade on all articles written

## TEACHING EXPERIENCE

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### Introduction to Undergraduate Research in Computer Science

*Teaching Assistant*

University of Minnesota

January 2023 — May 2023

- Facilitated 30+ students' weekly explorations of research career pathways through providing assistance in drafting emails to faculty and structuring research proposals

### Exploring Algorithms and Data Structures

*Teaching Assistant*

University of Minnesota

September 2022 — December 2022

- Assisted class of 30+ students in weekly problem solving activities involving Java basics, classes and inheritance, data structures, search, and sorting

### Introduction to Algorithms and Data Structures

*Teaching Assistant*

University of Minnesota

January 2022 — May 2022

- Designed 14 weeks of curriculum teaching object-oriented program principles and data structures in Java
- Supervised 35+ student lab sections, conducted weekly office hours for 230+ student courses, and graded using JUnit automated testing

### Introduction to Computing and Programming Concepts

*Teaching Assistant*

University of Minnesota

January 2021 — May 2021

- Designed 14 weeks of curriculum teaching core programming concepts such as loops, classes, and inheritance in Python
- Supervised 35+ student lab sections, conducted weekly office hours for 150+ student courses, and graded Gradescope

### Teaching Assistant Training

*Computer Science Department*

University of Minnesota

January 2022 — May 2022

- Completed 7 week course on conducting office hours and designing course curriculum
- Completed 4 semesters of implicit bias training course modules

## VOLUNTEER AND LEADERSHIP EXPERIENCE

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### President

*Association for Computing Machinery - Women*

Minneapolis, Minnesota

May 2023 — Present

- Organized 2 events per month to connect women in computing to opportunities in industry and academic (e.g. resume workshop)
- Managed and submitted club expenses budget of approximately \$10,000 for approval with computer science department

- Coordinated the renovation of a new club room, including collaboratively designing and ordering furniture such as cabinets, couches, and desks

**Editor-in-Chief***MURAJ (Undergraduate Student Research Publication)*

Minneapolis, Minnesota

May 2023 — Present

- Reviewed 120+ applications and collaboratively decided to hire 82 undergraduate peer reviewers for student research journal
- Peer-reviewed 30+ undergraduate student research manuscripts to publish in student research journal

**Webmaster***Association for Computing Machinery - Women*

Minneapolis, Minnesota

May 2022 — May 2023

- Redesigned club website on drupal7 to be more accessible
- Reconstructed club mission and vision to clearly communicate that the club welcomes women, gender non-conforming individuals, and allies of all backgrounds into a safe and supportive computing community

**Co-Founder***Carene-id (Nonprofit Literacy Project)*

Salatiga, Indonesia

February 2021 — September 2022

- Developed 10 weeks of English literacy curriculum for students ages 6-12 as a supplementary education service
- Directed a leadership team of 30+ from 120+ applicants for fundraising, marketing, and tutoring operations
- Managed an international and remote team of 12 tutors, web designers, and graphics designers

**Technical Content Team Lead***Foundation for a Human Internet (humanID)*

Allston, Massachusetts

April 2021 — June 2021

- Trained and interviewed 8 new writers and published 11 articles
- Authored 50+ pages of company documentation for Technical Content Team roles and style guidelines

**Technical Content Writer***Foundation for a Human Internet (humanID)*

Allston, Massachusetts

February 2021 — April 2021

- Authored 4 articles, each 1000-1500 words ranking up to first in SEO Google search results
- Edited 8+ articles that had a 100% publish rate on the company website

**Undergraduate Student Mentor***College of Science and Engineering Student Ambassadors Program*

Minneapolis, Minnesota

September 2021 — May 2023

- Advised four undergraduate STEM students on academic success and career exploration over the course of 9 months
- Prepared custom-timelines and compiled advice for course registration and internship applications

**Marketing Lead***Google Developers Student Club*

Allston, Massachusetts

September 2021 — October 2021

- Designed and managed weekly marketing communications for club on Instagram, Facebook, Website, LinkedIn, and paper posters
- Implemented marketing schedule of posting 1-3 times on all platforms per week to promote event attendance
- Captured moments at bi-monthly events through photography

**Developmental Coordinator***Charosa (Biomedical Engineering Student Research Group)*

Allston, Massachusetts

January 2021 — October 2021

- Facilitated connections between undergraduate students and research opportunities by organizing monthly events with invited faculty and industry professionals

**Youth Philanthropy Intern***Youthprise*

Minneapolis, Minnesota

June 2020 — August 2020

- Co-created curriculum content for a 12-week summer program, YouthBank Online
- Facilitated a group of 12 youth to grant out \$25,000
- Managed a small group of 3 youth for 15 meetings and facilitated youth through a grant-making cycle
- Built a community among a group of 12 young people and maintained relationships

**Founder***Local Girls Who Code Chapter*

Northfield, Minnesota

January 2020 — August 2020

- Recruited and managed leadership team of 5 club officers including graphic designer, marketing, and outreach
- Coordinated introductory events on computer science principles and career exploration with 30+ member attendance

**Assistant Skating Coach***Northfield Skating Club*

Northfield, Minnesota

August 2016 — June 2019

- Instructed fundamental figure skating skills to children aged 4-15
- Developed 30-minute lesson plans for classes of 15+ students Taught children ages 4-15 basic figure skating skills
- Achieved training and certification to teach basic figure skating skills to individuals of all ages

## PROJECTS

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- InnerVoice: Empathetic Journaling for Self-Compassion** Fall 2023  
*Human-AI Interaction*
- Designed a two-phase study to develop an AI-based empathetic journaling tool to improve college students' self-compassion
  - Conducted 6-9 semi-structured qualitative pilot interviews to develop prototype of interface
  - Constructed second phase to include two-week diary study to evaluate prototype
- Selection and Manipulation in Virtual Reality** Fall 2023  
*Virtual Reality and 3D Development*
- Implemented bimanual VR interaction technique in two controllers are used to define a virtual spindle that can be used to select and manipulate objects
- FridgeWizard Food Tracking Application** Spring 2023  
*User Interface Design*
- Developed a prototype of a food-tracking mobile application utilizing Android Studio in collaboration with a team of 5 students
  - Iterated through the four stages of the UX design process beginning with conducting user interviews with college students
- Full Stack Website Deployment** Spring 2022  
*Internet Programming*
- Developed a website with server-side Python and HTML, CSS, JS on the front-end with jQuery, ReactJS, Bootstrap frameworks
  - Managed databases with SQL and deployed the site to Amazon Web Services
- Drone Simulation** Spring 2022  
*Program Design and Development*
- Developed and extended features, including multiple types of transportation, vehicle availability, and multiple passenger functionality for a full-stack drone simulation application using C++ and practicing Agile over 14 weeks
- ELIZA** Spring 2022  
*Natural Language Processing*
- Designed chat program to carry basic conversation with users about their mental well-being using regular expressions
- Spellchecker** Spring 2022  
*Natural Language Processing*
- Implemented minimum-edit-distance algorithm to create a program that provides spelling change suggestions for a given text document
- Spectrogram** Spring 2022  
*Natural Language Processing*
- Implemented minimum-edit-distance algorithm to create a program that provides spelling change suggestions for a given text document
- Facilitation for Youthwork** Spring 2022  
*Teaching Methods in Higher Education*
- Developed full course curriculum on facilitation practices for adults doing nonprofit youth work in partnership with Dr. Alex Fink and Dr. Ilene Dawn Alexander
- Performance Optimization Study in C** Fall 2021  
*Machine Architecture and Organization*
- Optimized the implementation of a 2D array squaring algorithm for various input sizes by 70%, utilizing knowledge of processor pipeline and memory hierarchy
  - Analyzed and benchmarked the performance of linear and binary search algorithms for array, tree, and linked list implementations in C
- Hash Table Implementation and Collision Prevention Analysis** Spring 2021  
*Intro. Data Structures and Algorithms*
- Developed unique hash table implementation for known and unknown data and evaluated 3 methods to mimic key collisions in Java

## CONFERENCES AND WORKSHOPS

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<b>Computer Supported Collaborative Work (CSCW)</b>	Minneapolis, Minnesota
Presented poster publication and second-authored accepted full paper	October 2023
<b>We Give Youth Philanthropy Summit</b>	Virtual
Presented about the benefits of supporting youth philanthropy	2020-2022
<b>Grace Hopper Celebration</b>	Virtual
University of Minnesota Attendance Scholarship Recipient	2021-2022
<b>Minnesota Social Service Association</b>	Virtual
Presented about the benefits of supporting youth leadership and community engagement	2022
<b>Harvard WeCode</b>	Virtual
Attendee	2021-2022
<b>Rewriting the Code Career Summit</b>	Virtual
Attendee	2022
<b>Rewriting the Code Technology Interview Intensive Program</b>	Virtual
Participant	2022
<b>Meta Above and Beyond Computer Science (ABCS) Program</b>	Virtual
Participant	2022
<b>Richard Tapia Conference</b>	Virtual
Attendee	2021

## PROFESSIONAL MEMBERSHIP

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<b>Louis Stokes North Start STEM Alliance Program</b>	
Scholar	2023-2024
<b>Association for Computing Machinery-Women</b>	
Member	2022-2024
<b>Discover University of Chicago Prospective Graduate Student Visitation Program</b>	
Attendee	2023
<b>Emory University Laney Graduate School Prospective Graduate Student Visitation Program</b>	
Attendee	2023
<b>National Name Exchange</b>	
Participant	2021-2024
<b>University of Illinois Urbana-Champaign Grainger Engineering Prospective Graduate Student MERGE Visitation Program</b>	
Scholar	2022
<b>University of Minnesota First Year Leadership Institute</b>	
Scholar	2021

## SELECTED SKILLS

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### Selected Coursework

- Collaborative Social Computing
- User Interface Design
- Virtual Reality and 3D Interaction
- Human-Centered AI
- Natural Language Processing
- Program Design and Development
- Ethics in Science and Technology
- Online Learning Communities
- Educational Psychology and Human Development Research Methods
- Teaching Methods in Higher Education
- Probability & Statistics

### Programming Languages

- Python
- Java
- C++
- C

- JavaScript
- TypeScript
- PHP
- OCaml

### Tools and Frameworks

- HTML
- CSS
- jQuery
- Bootstrap
- Angular 12
- Docker
- Git
- SQL
- MySQL
- Cypress
- Ansible
- Puppet

### Languages

- English
- Chinese (speaking proficient)

## REFERENCES

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### **Dr. Stevie Chancellor**

*Assistant Professor, Computer Science and Engineering, University of Minnesota, Minneapolis, Minnesota*

E-mail: [steviec@umn.edu](mailto:steviec@umn.edu)

Scholar Profiles: [Website](#) — [Google Scholar](#) — [LinkedIn](#)

### **Dr. Shagun Jhaver**

*Assistant Professor, Communication and Information, Rutgers University, New Brunswick, New Jersey*

E-mail: [shagun.jhaver@rutgers.edu](mailto:shagun.jhaver@rutgers.edu)

Scholar Profiles: [Website](#) — [Google Scholar](#) — [LinkedIn](#)

### **Dr. Jina Suh**

*Principal Researcher, Microsoft Research Human-Computer Interaction, Microsoft, Redmond, Washington*

E-mail: [jinsuh@microsoft.com](mailto:jinsuh@microsoft.com)

Scholar Profiles: [Website](#) — [Google Scholar](#) — [LinkedIn](#)

### **Dr. Amy Zhang**

*Assistant Professor, Communication and Information, University of Washington, Seattle, Washington*

E-mail: [axz@cs.uw.edu](mailto:axz@cs.uw.edu)

Scholar Profiles: [Website](#) — [Google Scholar](#)

### **Dr. Ross VeLure Roholt**

*Associate Professor and Director of Youth Development Leadership Program, School of Social Work, University of Minnesota, Minneapolis, Minnesota*

E-mail: [rossvr@umn.edu](mailto:rossvr@umn.edu)

Scholar Profiles: [Website](#) — [Google Scholar](#) — [LinkedIn](#)