# Yixuan (Janice) Zhang

# **Research Interests**

Human-Computer Interaction (HCI), Data Visualization (VIS), Equity, Crisis Informatics, Health Informatics, Trust.

# Education

**Georgia Institute of Technology** 

Atlanta, GA

Ph.D. in Human-Centered Computing

2020 - 2023 Spring (Expected)

Northeastern University

Boston, MA

Ph.D. in Personal Health Informatics (Before transferring to Georgia Tech)

2017 - 2020

**Northeastern University** 

Boston, MA

M.S. in Health Informatics

City University of Hong Kong

GPA 3.97/ 4.0

**City University of Hong Kong** 

Hong Kong

Fine Arts in Creative Media

with Academic Distinctions

# **Honors & Awards**

2022 <b>EECS Rising Stars</b> , hosted by The University of Texas at Austin (la	aunched at MIT in 2012)
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- 2022 Foley Scholar Award, highest award for excellence in computing research, Georgia Tech
- 2021 Special Recognition for Reviewing (2 awards), ACM SIGCHI2022
- 2019 **CRA-W Grad Cohort Participation Grant**, Computing Research Association
- 2018-2019 **IEEEVIS Travel Grant**, Institute of Electrical and Electronics Engineers
- 2018-2019 PhD Network Travel Grant, Northeastern University

# **Publications**

# Peer-reviewed Conference & Journal Publications<sup>1</sup>

#### 1. [CHI'23] (To appear)

Yixuan Zhang, Joseph D Gaggiano, Nutchanon Yongsatianchot, Nurul Suhaimi, Miso Kim, Yifan Sun, Jacqueline Griffin, and Andrea G. Parker. 2023. **What Do We Mean When We Talk about Trust in Social Media? A Systematic Review**. In CHI Conference on Human Factors in Computing Systems (CHI '23).

[Top 14%]

#### 2. [CHI'23] (To appear)

Jiawei Zhou, Yixuan Zhang, Qianni Luo, Andrea G. Parker, and Munmun De Choudhury. 2023. **Synthetic Lies: Understanding AI-Generated Misinformation and Evaluating Algorithmic and Human Solutions**. In CHI Conference on Human Factors in Computing Systems (CHI '23). [Top 14%]

#### 3. [VIS'22/ IEEE TVCG Journal'23]

Yixuan Zhang, Yifan Sun, Joseph D Gaggiano, Neha Kumar, Clio M. Adris, and Andrea G. Parker. 2022. Visualization

<sup>&</sup>lt;sup>1</sup>In the field of computer and information sciences, leading conferences (e.g., CHI, VIS, CSCW) are top-tier publishing venues that undergo rigorous peer-review processes typically involving four expert reviewers, with selectivity and impact often exceeding that of journals. Please see details at http://portal.acm.org/citation.cfm?id=1743546.1743569. Several CS conferences have moved to a hybrid model with a journal component (e.g., VIS, CSCW). The acceptance rate, the link to paper PDF, videos, demo, and code (with clickable icons) are also provided following each citation wherever available.

**Design Practices in a Crisis: Behind the Scenes with COVID-19 Dashboard Creators.** IEEE Transactions on Visualization and Computer Graphics.

[Acceptance rate: 122/460  $\approx$  26.5%]

及 PDF

#### 4. [CHI'22]

Yixuan Zhang, Nurul Suhaimi, Nutchanon Yongsatianchot, Joseph D Gaggiano, Miso Kim, Shivani A. Patel, Yifan Sun, Stacy Marsella, Jacqueline Griffin, and Andrea G. Parker. 2022. **Shifting Trust: Examining How Trust and Distrust Emerge, Transform, and Collapse in COVID-19 Information Seeking**. In CHI Conference on Human Factors in Computing Systems (CHI '22). Association for Computing Machinery, New York, NY, USA, Article 78, 1–21.

[Top 12.5%; Acceptance rate:  $638/2597 \approx 24.6\%$ ]

▶ PDF 🖹 Talk 🖺 30s Overview

### 5. **[CHI'22]**

Nurul Suhaimi, Yixuan Zhang, Miso Kim, Mary Joseph, Andrea G. Parker, and Jacqueline Griffin. 2022. **Investigating Older Adults' Attitudes towards Crisis Informatics Tools: Opportunities for Enhancing Community Resilience during Disasters**. In CHI Conference on Human Factors in Computing Systems (CHI '22). Association for Computing Machinery, New York, NY, USA, Article 258, 1–16.

[Acceptance rate:  $638/2597 \approx 24.6\%$ ]

**及**PDF

#### 6. [Interacting with Computer (Journal)'22]

<u>Yixuan Zhang\*</u>, Nurul Suhaimi\*, Nutchanon Yongsatianchot, Joseph D Gaggiano, Anne Okrah, Shivani A. Patel, Stacy Marsella, Miso Kim, Andrea G. Parker, and Jacqueline Griffin. 2022. **Social Media Use and Individuals' Intent to Get Vaccinated Against COVID-19: An Exploratory Study of the Mediating Role of Information Exposure**. Interacting with Computer. (To appear)

### 7. [The Design Journal (RFDJ)'22]

Miso Kim, Valeria Ramdin, Rachel Pozzar, Paul Fombelle, Xing Zhou, Yixuan Zhang, and Muling Jiang. 2022. **Healthy Aging Adviser: Designing a Service to Support the Life Transitions and Autonomy of Older Adults**. The Design Journal, 25(2), 143-164.

🔀 PDF

#### 8. [CHI'21]

<u>Yixuan Zhang</u>, Yifan Sun, Lace Padilla, Sumit Barua, Enrico Bertini, and Andrea G. Parker. 2021. **Mapping the Land-scape of COVID-19 Crisis Visualizations**. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 608, 1–23.

#### 9. **[EuroVis'21]**

Yifan Sun, Yixuan Zhang, Ali Mosallaei, Michael D. Shah, Cody Dunne, and David Kaeli. 2021. **Daisen: A Framework for Visualizing Detailed GPU Execution**. In Computer Graphics Forum (Vol. 40, No. 3, pp. 239-250).

[Acceptance rate:  $45/173 \approx 26\%$ ]

▶ PDF 🖵 Demo

#### 10. [CHI'20]

<u>Yixuan Zhang</u>, Nurul Suhaimi, Rana Azghandi, Mary Joseph, Miso Kim, Jacqueline Griffin, and Andrea G. Parker. 2020. <u>Understanding the Use of Crisis Informatics Technology among Older Adults</u>. Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'20). Association for Computing Machinery, New York, NY, USA, 1–13.

[Acceptance rate:  $760/3126 \approx 24.3\%$ ]

▶ PDF 目 30s Overview

#### 11. [CHI'20 EA]

<u>Yixuan Zhang</u> and Andrea G. Parker. 2020. **Eat4Thought: A Design of Food Journaling**. In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems, pp. 1-8. 2020.

[Acceptance rate: 323/772  $\approx$  41.8%]

**及** PDF

#### 12. [VIS'20/ IEEE TVCG Journal'21]

Sara Di Bartolomeo, Yixuan Zhang, Fangfang Sheng, and Cody Dunne. 2021. **Sequence Braiding: Visual Overviews of Temporal Event Sequences and Attributes**. IEEE transactions on visualization and computer graphics, 27(2), 1353-1363.

[Acceptance rate:  $64/250 \approx 25.6\%$ ]

▶ PDF □ Demo ♦ Code 🖽 30s Overview ■ Talk

#### 13. [VIS'20/ IEEE TVCG Journal'21]

Michail Schwab, David Saffo, <u>Yixuan Zhang</u>, Shash Sinha, Cristina Nita-Rotaru, James Tompkin, Cody Dunne, and Michelle A. Borkin. 2021. **VisConnect: Distributed Event Synchronization for Collaborative Visualization**. IEEE Transactions on Visualization and Computer Graphics, 27(2), 347-357.

[Acceptance rate:  $64/250 \approx 25.6\%$ ]

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#### 14. **[CSCW'19]**

Elizabeth Stowell, <u>Yixuan Zhang</u>, Carmen Castaneda-Sceppa, Margie Lachman, and Andrea G. Parker. 2019. **Caring for Alzheimer's Disease Caregivers: A Qualitative Study Investigating Opportunities for Exergame Innovation**. Proc. ACM Hum.-Comput. Interact. 3, CSCW, Article 130 (November 2019), 27 pages.

[Acceptance rate: 205/ 658  $\approx$  31.2%]

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#### 15. [VIS'19]

<u>Yixuan Zhang</u>, Sara Di Bartolomeo, Fangfang Sheng, Holly Jimison, and Cody Dunne. 2019. **Evaluating Alignment Approaches in Superimposed Time-Series and Temporal Event-Sequence Visualizations**. In 2019 IEEE Visualization Conference (VIS), Vancouver, BC, Canada.

[Acceptance rate: 59/ 186  $\approx$  24.3%]

PDF 🖽 30s Overview

#### 16. [VIS'18/ IEEE TVCG Journal'19]

Yixuan Zhang, Kartik Chanana, and Cody Dunne. 2019. **IDMVis: Temporal Event Sequence Visualization for Type 1 Diabetes Treatment Decision Support**. IEEE Transactions on Visualization and Computer Graphics 25, 1 (Jan 2019), 512–522.

[Acceptance rate:  $47/183 \approx 25.7\%$ ]

PDF 및 Demo 目 25s Overview ■ Talk Poster

#### 17. **[AHFE'18]**

<u>Yixuan Zhang</u>, Rachel Pozzar, Xing Zhou, Miso Kim, Paul W Fombelle, and Valeria A Ramdin. 2018. **Autonomy in Residential Care: Using TEAMWORK and the Deep Dive to Facilitate Interdisciplinary Collaboration**. In International Conference on Applied Human Factors and Ergonomics. Springer, 279–288.

🔀 PDF

#### 18. [ServDes'18]

Valeria A Ramdin, Miso Kim, Rachel Pozzar, Paul W Fombelle, <u>Yixuan Zhang</u>, Xing Zhou, and Julia Janigan. 2018. **Resident Autonomy in Assisted Living Facilities: A Conceptual Framework for Transformative Service Research**. In ServDes2018. Service Design Proof of Concept, Proceedings of the ServDes. 2018 Conference, 18-20 June, Milano, Italy. Linköping University Electronic Press, 1088–1099.

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# Panels | Workshop Papers | Posters | Exhibitions

1. [EECS Rising Stars (Academic Career Workshop)]

Yixuan Zhang. 2022. "The Rise & Fall of Online Trust."

2. [Panel] VIS'21

Min Chen, David Ebert, Lace Padilla, <u>Yixuan Zhang</u>, and Alfie Abdul-Rahman. 2021. "What is the Role of VIS in Combating COVID-19?"

Panel Statement PDF Panel Recording

3. **[Workshop]** WISH 2020 (The Workgroup on Interactive Systems in Health).

Nurul Suhaimi, Nutchanon Yongsatianchot, <u>Yixuan Zhang</u>, Anisa Amiji, Shivani A. Patel, Stacy Marsella, Miso Kim, Jacqueline Griffin, and Andrea G Parker. 2020. Examining Older Adults' Information Exposure, Wellbeing, and Adherence to Protective Measures During the COVID-19 Pandemic.

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4. [Workshop] VIS COMM 2020 (Visualization for Communication), virtual.

Yixuan Zhang, Yifan Sun, Sumit Barua, Enrico Bertini, and Andrea G. Parker. 2021. Mapping the Landscape of COVID-19 Crisis Visualizations.

5. **[Workshop]** Al4CHI 2020 (Conference on Human Factors in Computing Systems), Honolulu, HI, USA. 2020. <a href="Yixuan Zhang">Yixuan Zhang</a>, Aditeya Pandey</a>, John A. Guerra-Gomez, Andrea G Parker, Michelle A. Borkin. 2020. Augmenting Task Abstraction in Visualization Research with Artificial Intelligence.

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6. **[Short Paper as Poster]** CHI 2020 (Conference on Human Factors in Computing Systems), Honolulu, HI, USA. Yixuan Zhang and Andrea G Parker. 2020. Eat4Thought: A Design of Food Journaling.

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7. **[Short Paper as Poster]** PervasiveHealth '20: Proceedings of the 14th EAI International Conference on Pervasive Computing Technologies for Healthcare. Atlanta, GA.

<u>Yixuan Zhang,</u> Andrea G Parker, and Cody Dunne. 2020. Information Visualization for Diabetes Management: A Literature Review.

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8. **[Poster]** CRA-W 2019 (Computing Research Association–Grad Cohort for Women program), Chicago, IL, USA. Yixuan Zhang and Cody Dunne. 2020, Visualization for Type 1 Diabetes Treatment Decision Support.

- 9. **[Poster]** Eastern Nursing Research Society (ENRS) 31st Annual Scientific Sessions, Providence, RI, USA. Rachel Pozzar, Miso Kim, Valeria A Ramdin, Xing Zhou, <u>Yixuan Zhang</u>, and Paul W Fombelle. Conceptualizations of Autonomy in the Residential Care Setting: Results from an Interdisciplinary Service Design Project.
- 10. [Poster] Frontiers in Service.

Rachel Pozzar, Miso Kim, Valeria A Ramdin, Xing Zhou, Yixuan Zhang, and Paul W Fombelle. 2018. Residential Care as a Negative Service: Informing a Service Prototype to Promote Elder Autonomy. 2018.

11. [Poster] RISE 2017, Northeastern University, Boston, MA, USA.

Yixuan Zhang. Video-Oriented Approach to Improve Healthy Eating Behaviors.

12. [Exhibition] Run Run Shaw Creative Media Center, City University of Hong Kong, Hong Kong.

" Media Art & The Environment - The Desert Metropolis"

### Talks

1. [Paper Talk]

**VIS 2022**, Oklahoma City, OK, USA. "Visualization Design Practices in a Crisis: Behind the Scenes with COVID-19 Dashboard Creators" (October 2022).

#### 2. [Paper Talk]

**CHI 2022**, New Orleans, LA, USA. "Shifting Trust: Examining How Trust and Distrust Emerge, Transform, and Collapse in COVID-19 Information Seeking" (May 2022).

#### 3. [Paper Talk]

**CHI 2022**, New Orleans, LA, USA. "Investigating Older Adults' Attitudes towards Crisis Informatics Tools: Opportunities for Enhancing Community Resilience during Disasters" (May 2022).

#### 4. [Invited Guest Lecture]

CSCI 780 Data Visualization, William & Mary, VA. "Qualitative Methods in HCI" (April 11-13, 2022).

#### 5. [Invited Guest Lecture]

CS 5764 InfoVis, Virginia Tech, VA. "Trust, Visualizations, and COVID-19" (March 16, 2022).

#### 6. [Invited Speaker]

**The World Health Organization (WHO) Webinar 2021**, Virtual. "The Past, Present, and Future of COVID-19 Dashboards" (December 9, 2021).

#### 7. [Invited Panelist]

VIS 2021, Virtual. "What is the Role of VIS in Combating COVID-19?" (October 27, 2021).

#### 8. [Paper Talk]

CHI 2021, Virtual. "Mapping the Landscape of COVID-19 Crisis Visualizations" (April 2021).

#### 9. [Invited Talk]

**Friendly Cities Lab, Georgia Tech, 2021**, Virtual. "Mapping the Landscape of COVID-19 Crisis Visualizations" (April 2021).

# 10. [Paper Talk]

**CHI 2020**, Honolulu, Hawai'i, USA. "Understanding the Use of Crisis Informatics Technology among Older Adults" (May 2020).

### 11. [Paper Talk]

**VIS 2019**, Vancouver, BC, Canada. "Evaluating Alignment Approaches in Superimposed Time-series and Temporal Event-sequence Visualizations" (October 2019).

#### 12. [Invited Talk & Demo]

**VIS Workshop on Visual Analytics in Healthcare (VAHC) 2019**, Vancouver, BC, Canada. "Evaluating Alignment Approaches in Superimposed Time-series and Temporal Event-sequence Visualizations" (October 2019).

#### 13. [Invited Talk]

New England Chapter of Healthcare Information and Management Systems Society (HIMSS) Event 2019, Boston, MA, USA. "Visualization of Data to Support Clinician and Patient Decision Making" (March 19, 2019).

#### 14. [Paper Talk]

**VIS 2018**, Berlin, Germany. "IDMVis: Temporal Event Sequence Visualization for Type 1 Diabetes Treatment Decision Support" (October 2018).

#### 15. [Paper Talk]

**AHFE 2018**, Orlando, FL, USA. "Autonomy in Residential Care: Using TEAM-WORK and the Deep Dive to Facilitate Interdisciplinary Collaboration" (August 2018).

# **Teaching Experience**

#### CS 6440. Intro to Health Informatics

Georgia Tech

Teaching Assistant; Mentored 10 student course projects

Grad-level Course (Spring'22, Fall'22)

Class size  $\approx$  100 students

CS 5764. InfoVis

Virginia Tech

Guest Lecturer: "Trust, Visualizations, and COVID-19"

Grad-level Course (Spring'22) Class size  $\approx$  30 students

CSCI 780. Data Visualization

William & Mary

Guest Lecturer: "Qualitative Research Methods"

Grad-level Course (Spring'22) Class size  $\approx$  20 students

### SM 2258. Creative Electronics Workshop

City University of Hong Kong

**Teaching Assistant Undergrad-level Course** Class size ≈ 20 students

# Working Experience \_\_\_\_\_

**Harvard University** Cambridge, MA

User Experience Designer & Developer (Intern)

Jan-June, 2015

- Designed and developed websites (IdGlobal) for clients using Drupal platform with PHP, HTML/CSS/JavaScript
- Conducted user experience studies and stakeholder analysis on a new project (ProjectZero)

Illumina Hayward, CA User Experience Designer (Intern) Jun-Aug, 2014

- Conducted interviews to make requirement analysis and redesigned Illumina intranet information architecture
- Redesigned and developed intranet system with HTML/CSS/JS and conducted usability testing
- · Documented intranet user interface guidelines, standards and tutorial documentation for future maintenance

# Service

<b>Program Committee</b>	Paper Chair Assistant for ACM SIGCHI 2021 Health subcommittee	2021
	Co-Chair of AHFE Interdisciplinary Discourse in Service Design	2018
Conference/ Journal Paper Reviewer	ACM SIGCHI 2 Special Recognitions for Outstanding Reviews (CHI'22)	2019-current
	ACM Computer-Supported Cooperative Work (CSCW)	2020-current
	IEEE VIS/ TVCG Journal	2020-current
	EuroVis	2022
	Designing Interactive Systems (DIS)	2022
	Big Data & Society	2021
Book Proposal Reviewer	Book proposal from Routledge & CRC Press	2021
Other	Lab meeting lead, Wellness Technology Lab, Georgia Tech	2020-2022

# Selected Media Coverage \_

- 1. "Misinformation examination: How trust and distrust shift during COVID-19". Phys.org; newsbreak.com. (March, 2022).
- 2. "Research on Information Flow During Crisis Can Help Communities with COVID-19". Northeastern University. Press Release (March 30, 2020).
- 3. "PhD Student Yixuan Zhang Uses Data and Visual Analytics to Improve Type 1 Diabetes Care". Northeastern University. Press Release (January 25, 2019).
- 4. "The New England HIMSS Chapter", HIMSS Newsletter. ISSUE NO. 2, SPRING 2019 Press Release.

# **Student Mentees**

#### **Graduate students**

Joseph Gaggiano

MS in Human Computer Interaction
(co-author of CHI'22 + VIS'22 papers)

(2021-22) Georgia Tech

Xiao Luo MS in Human Computer Interaction (2021) Georgia Tech

MS in Computer Science

Clark Xu Data scientist in the UW Madison School of Medicine (2021) Georgia Tech

MS in Health Informatics
Sumit Barua (2020) Northeastern University

(co-author of CHI'21 paper)

MS in Bioinformatics

Fangfang Sheng (2019-20) Northeastern University (co-author of VIS'19 + VIS'20 papers)

MFA in Experience Design

Mary Joseph (2019-20) Northeastern University (co-author of CHI'20 and CHI'22 papers)

Charlotte Gray MPH in Public Health

(mentored Master Thesis) (2019) Northeastern University

(2020) Northeastern University

MS in Computer Science

Health Equity Intern

Kartik Chanana (2018) Northeastern University (co-author of VIS'18 paper)

# **Undergraduate students**

Melissa Ramkarran

Elizabeth Ayala Mojica BS in Computer Science (2022) Helen Fellows, Georgia Tech

Anisa Amiji

BS in Health Science
(co-author of WISH'20 workshop paper)

(2020) Northeastern University

Anita Onuoha Health Equity Intern, Northeastern University (2019) Northeastern University

# Skills

**Design** Adobe Creative Suite, Sketch, InVision, Photography

**Programming** HTML, CSS, JavaScript, D3.js, R, Python