# Xinchen Yu

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RESEARCH INTERESTS

My research lies at the intersection of natural language processing (NLP) and computational social science (CSS). I am passionate about conversational behaviors and anti-social computing. The primary goal is to model conversations from user-generated content to explain, predict, and prevent online incivility. Specifically, I enhance NLP system performance on modeling uncivil behaviors by incorporating conversational context. Additionally, I develop frameworks to measure and forecast incivility of conversations. I am also interested in developing socially aware language technologies and facilitate their usage in other disciplines such as social and political science.

ACADEMIC APPOINTMENTS **Assistant Professor of Practice**, Computer Science

Aug. 2023 - present

University of Arizona, Tucson, AZ

**EDUCATION** 

Ph.D. in Information Science

Jul. 2023

University of North Texas, Denton, TX

Advisor: Lingzi Hong

Committee: Eduardo Blanco, Junhua Ding, Diyi Yang

Thesis: Countering Hate Speech: Modeling User-generated Web Content Using Natural Language

Processing (NLP)

M.S. in Information Science

May 2019

University of Pittsburgh, Pittsburgh, PA

**B.S. in Library and Information Science** Zhejiang University, Hangzhou, China

May 2017

PAPERS IN SUBMISSION

**Xinchen Yu**, Hayden Armold, Benjamin Su, Eduardo Blanco. Measuring and Forecasting Conversation Incivility: the Role of Antisocial and Prosocial Behaviors. *Under review* 

**PUBLICATIONS** 

**Xinchen Yu**, Eduardo Blanco, Lingzi Hong (2024). Hate Cannot Drive out Hate: Forecasting Conversation Incivility following Replies to Hate Speech. In *Proceedings of the 18th International AAAI Conference on Web and Social Media* (ICWSM 2024).

**Xinchen Yu**, Ashley Zhao, Eduardo Blanco, Lingzi Hong (2023). A Fine-Grained Taxonomy of Replies to Hate Speech. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing* (EMNLP 2023).

**Xinchen Yu**, Zhuoli Xie, Afra Mashhadi, Lingzi Hong (2022). Multi-task Models for Multi-faceted Classification of Pandemic Information on Social Media. In *Proceedings of the 14th ACM Web Science Conference* (WebSci 2022).

**Xinchen Yu**, Eduardo Blanco, Lingzi Hong (2022). Hate Speech and Counter Speech Detection: Conversational Context Does Matter. In *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies* (NAACL 2022).

Xinchen Yu, Jeremy Boy, Rene Clausen Nielsen, Lingzi Hong (2022). Linguistic Characteristics of Social Media Messages Spreading across Geographic and Linguistic Boundaries. In *Proceedings of the 9th European Conference on Social Media* (ECSM 2022).

**Xinchen Yu**, Afra Mashhadi, Jeremy Boy, Rene Clausen Nielsen, Lingzi Hong (2022). Causal Impact Model to Evaluate the Diffusion Effect of Social Media Campaigns. In *Proceedings of 20th European Conference on Computer-Supported Cooperative Work* (EUSSET 2022).

Alexander Kahanek, **Xinchen Yu**, Lingzi Hong, Ana Cleveland, Jodi Philbrick (2021). Temporal Variations and Spatial Disparities in Public Sentiment Toward COVID-19 and Preventive Practices in the United States: Infodemiology Study of Tweets. In *JMIR Infodemiology*.

Lingzi Hong, William Moen, Xinchen Yu, Jiangping Chen (2021). The Disciplinary Research Landscape of Data Science Reflected in Data Science Journals. In *Journal of Information Discovery and Delivery*.

**Xinchen Yu**, Daida Shashidhar Reddy, Lasya Bentula, Lingzi Hong (2020). Characteristics of Information Spreading across Nations. In *Proceedings of the Association for Information Science and Technology* (ASIS&T 2020).

**Xinchen Yu**, Shashidhar Reddy Daida, Jeremy Boy, Lingzi Hong (2020). The Effect of Structural Affinity on the Diffusion of a Transnational Online Movement: The Case of #MeToo. In *Proceedings of the 12th International Conference on Social Informatics* (SocInfo 2020).

#### **TEACHING**

**Instructor of record** at the University of Arizona.

- CSC 110: Introduction to Computer Programming I (Fall 2023, Spring 2024, Fall 2024)
- CSC 380: Principle of Data Science (Fall 2023, Spring 2024)

**Instructor of record** at the University of North Texas.

• INFO 4670: Data Analysis and Knowledge Discovery (Fall 2022)

**Teaching Assistant** at the University of North Texas.

- INFO 3010: Introduction to Data Science (Fall 2020, Fall 2021)
- INFO 5709: Data Visualization and Communication (Spring 2021, Spring 2022)

#### INVITED TALKS

Forecasting Conversation Incivility following Replies to Hate Speech.

• ICWSM, Jun. 2024

Hate speech and counter speech detection.

- Women in Data Science Worldwide Tucson Conference (WiDS), Mar. 2024
- AJCAI Workshop on Toxic Language Detection (TLD), Dec, 2022
- NAACL, Aug. 2022

## HONORS AND AWARDS

UNT Margaret Irby Nichols Endowed Scholarship (\$1,000)	2022
UNT Dewey E. Carroll Endowed Graduate Fellowship (\$4,000)	2022
UNT Graduate Student Research Awards (\$1,200)	2021, 2022
UNT Department of Information Science Travel Grant	2020, 2022
UNT COVID-19 Student Success Award (\$1,000)	2020, 2021
ZJU Excellent Student Awards	2014-2017
ZJU Hengyi Scholarship (top 1/326)	2016
ZJU Real Estate Fund Scholarship	2015

# SERVICE Mentoring

- $\bullet$  Hayden Armold, UofA, undergraduate student  $\to$  KAIST Digital Humanities and Computational Social Sciences
- ullet Benjamin Su, UofA, undergraduate student o USC Viterbi School of Engineering
- Ashley Zhao, TAMS, high school student → Cornell Engineering

## Area Chairing

• COLING 2025: Offensive Speech Detection and Analysis track

### Reviewing

- ACL 2024
- EMNLP 2023, 2024
- LREC-Coling 2024
- CHI 2024
- Computational Linguistics
- Information Discovery and Delivery
- The Electronic Library