Tian Xu

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EDUCATION

University of Colorado Boulder, Department of Information Science Aug 2021 – Present
Doctor of Philosophy in Information Science

- Emphasis in human-computer interaction & computer-supported cooperative work
- Advisor: Dr. Stephen Voida

Syracuse University, School of Information Studies Aug 2018 – May 2020
Master of Science in Information Management
Certificate of Advanced Studies in Data Science

- Featured by iConsult Collaborative for contributing to the Microsoft & Syracuse Smart City Project

University of Electronic Science and Technology of China Sep 2010 – June 2013
Master of Law

- Scholarship for Academic Excellence

Communication University of China, Nanjing Sep 2006 – June 2010
Bachelor of Arts

- College Scholarship Recipient: 2008, 2009, 2010
- College TV Station – Best Editor, 2008; College Debate Competition – Best Debater, 2009

RESEARCH EXPERIENCES

University of Colorado Boulder, Department of Information Science Aug 2021 – Present
Graduate Research Assistant
Studies primarily lie in human-computer interaction and computer-supported cooperative work with a focus on health informatics.

- Understanding the characteristics of technologies used in individuals' everyday lives as part of chronic illnesses management
- Designing family-focused mental-health-support tracking application
- Examining the privacy concerns of health data sharing of people with chronic illnesses

University of Washington, School of Medicine June 2020 – Dec 2020
Research Assistant Seattle, WA

A collaboration with professors to research substances use stigma and health information, prevention behavior, and disparities during the COVID-19 pandemic. The *substances use stigma* study leverages qualitative and quantitative methods (Natural Language Processing techniques and corpus annotation) to understand stigma processes around different types of substances use (alcohol, marijuana, and opioids) for the improvement of stigma reduction. The *COVID-19 health information* study examines how disparities in access to information influences individual' s prevention behavior during the COVID-19 pandemic via survey method.

- Created a survey regarding health literacy, online information accessibility, information behavior, etc. on Qualtrics
- Developed code to analyze three annotators' agreement on the multi-label annotations
- Conducted preliminary analysis on the prevalence of stigma types across different manners of substance use
- Created code scripts to extract and prepare data for research analysis
- Collaborated to write documents for the Institutional Review Boards and to conduct pilot test
- Interpreted and analyzed quantitative analysis results and wrote the corresponding analysis report
- Found related research and wrote literature review

Syracuse University, College of Engineering & Computer Science June 2020 – June 2021

Research Assistant Syracuse, NY

A study examining the relationship between the evolution of social media (Reddit), sub-communities, and users' lifespan for understanding the aspects influencing online community popularity, activeness, and vitality.

- Collaborated to develop a research plan including the research question, data collection, methodology, and analysis plan
- Developed code scripts to build a language model, calculating linguistic distance between different communities
- Extracted key information (e.g. bigrams) from different groups to categorize topics using scikit-learn and TF-IDF
- Interpreted and analyzed quantitative results and wrote the corresponding analysis report

Syracuse University, School of Information Studies Sep 2019 – Dec 2020

Graduate Research Assistant Syracuse, NY

A study characterizing users in an online community, Reddit ChangeMyView, based on awarding behavior as analyzed from users' digital traces. The study suggests that users with different awarding behavior could be significantly different in their language style, interaction dynamics, and interested topics. It is speculated that users' primary online communities may affect users' domain knowledge when they interact with others online (e.g. persuasion).

- Developed methodology to measure semantic distance between groups using word embedding and Word Mover' s Distance

- Used Linguistic Inquiry and Word Count (LIWC) to understand psychological traits through online document analysis
- Extracted topics to analyze users' interests on social media using Latent Dirichlet Allocation
- Examined personality differences between user groups via prediction with machine learning and deep learning techniques
- Tested statistical significance using T-test, Mann-Whitney U test, and effect size
- Wrote and submitted results as first author to iConference, 2021
- Annotated approximately 8000 posts from Sina Micro Blog for a study on misinformation prediction on social media

Syracuse University, Social Computing Systems Lab (SALT) Feb 2019 – Jul 2019
Graduate Research Assistant Syracuse, NY

- Collaborated to design experiments testing a mobile camera detection system in collaboration with a research team from Carnegie Mellon University
- Analyzed surveys and interviews to identify the themes of individuals' attitudes toward an online teaching system

PEER-REVIEWED PUBLICATIONS

- Janghee Cho, **Tian Xu**, Abigail Rose Zimmermann-Niefield, Stephen Voida. To appear. Reflection in theory and reflection in practice: An exploration of the gaps in reflection support among personal informatics apps. To appear in *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22),* April 29–May 5, 2022.

SUBMITTED MANUSCRIPTS

- **Tian Xu**, Stephen Voida. 2022. Technological Mediation of Strategies in Coping with Mental Health Challenges: A Case Study with People with Bipolar Disorder. Submitted to *CHI'22 Workshop*.
- Junnan Yu, **Tian Xu**, Camryn Kelley, Janet Ruppert, Ricarose Roque. 2022. Designing and Leveraging Technologies to Support Physical-Activity-based Learning Experiences for Young People: Characteristics and Opportunities. Submitted to *Review of Educational Research*.

WORK EXPERIENCE

iConsult Collaborative at Syracuse University Feb 2019 – Apr 2020
Data Analyst Syracuse, NY

- Leveraged data analytics and machine learning techniques (R, SVM) to support the Public Works department of the City of Syracuse in achieving a data driven work environment (Smart City Project)
- Developed a website for a local non-profit organization to support their organization development

China Academy of Railway Sciences (CARS) Apr 2014 – Jul 2017

Assistant Engineer Beijing, China

- Led a fund-supported ($100,000) research project to establish CARS' profile
- Coordinated with a 3-person UX team to investigate several image libraries and establish an image database

TEACHING EXPERIENCE

University of Colorado Boulder, Department of Information Science

Teaching Assistant for INFO2201 Computational Reasoning II Fall 2021

- Led weekly recitations and graded final projects for 56 undergraduates
- Held weekly office hour to assist students with their assignments and programming problems

Syracuse University, School of Information Studies

Teaching Assistant for IST664 Natural Language Processing Spring 2020

- Held weekly office hour to assist students with their assignments and programming problems
- Graded exams and weekly assignments for 40 graduates

Teaching Assistant for IST621 Information Management and Technology Fall 2019

- Led weekly discussions and presentations for 6-10 graduates
- Developed class materials to help students understand digital transformation
- Graded assignments and weekly presentations for 40 graduates

PROFESSIONAL ACTIVITY

Reviewer: ACM Web Science conference (WebSci, 2020)