

WENYUAN WANG

UX Researcher on Visualization Systems and Human-Machine Teaming

 Wenyuan.Wang@unc.edu
 scarvaapad.github.io/

 412-721-5243
 www.linkedin.com/in/vaapad



EDUCATION

Ph.D. in Information Science
UNC Chapel Hill

Thesis title: "That's about enough: Investigating Individual Traits on Information Satiety"

 Aug 2017 – Present
 Chapel Hill, NC

M.Sc. in Information Science
University of Pittsburgh

 Aug 2013 – May 2015
 Pittsburg, PA

B.Sc. in Computer Science
Shanghai University of Finance and Economics

 Sept 2008 – June 2012
 Shanghai, China

RESEARCH EXPERIENCES

Funded Research: Individual Information Satiety on Decision Making
UNC Chapel Hill & Laboratory of Analytical Sciences

 Jan 2024 – Dec 2024
 Chapel Hill, NC

Quantitative Method Qualitative Method Python JavaScript Project Management

- A Cloud Research (Mturk) study of how and why users stop information-seeking in decision-making scenarios.
- Designed and implemented the *interactive visualization system* to capture users' stopping behaviors during decision-making activities.
- Designed surveys to capture users' personality traits and questionnaires for users' stopping intentions.
- Performed data analysis on collected data from both quantitative and qualitative measures.
- Managed project in steady progress through constant communications with stakeholders (Laboratory of Analytical Sciences).

UX Research Scholar Summer Intern
Laboratory of Analytical Sciences

 June 2023 – Aug 2023
 Raleigh, NC

Qualitative Method Focus Group Study

- Collaborated with Academic Scholars, Industrial Analysts and Government Agents during the 8-week *Summer Conference of Applied Data Science (SCADS)*, to develop a *Tailored Daily Report (TLDR)* system to enhance intelligence analysts' workflows.
- Focused on *Human-Machine Teaming* aspect of the project, investigating users' needs for a tailored system.
- Collaborated in Designing and executing a research project capturing core values of NSA intelligent analysts with focus discovery exercises, and analyzed data to derive key insights.

Research Assistant
Visual Analytics and Communication Lab

 Aug 2017 – Present
 Chapel Hill, NC

Quantitative Method Python Java JavaScript SQL Health Informatics

- Contributed system development of *Cadence*, a visual analytic platform for high dimensional time series data.
- Retrieved Medical metadata and built a pipeline to process data mapping with different code systems (ICD9, ICD10, and SNOMED).
- Collaborated with the Lab on multiple research projects involving bias detection and human reasoning enhancement in visualization systems (see publications).

Research Assistant
Digital Innovation Lab

 June 2020 – Dec 2020
 Chapel Hill, NC

JavaScript Python

- Created interactive visualization for exploratory data analysis on Twitter Analysis of COVID-19 vaccine-related topics from October 2019 to February 2020.
- Analyzed data integrity and proposed alternative strategies for the data analytics process based on initial findings.
- Applied LDA models for topic modeling on the existing dataset.

WORK EXPERIENCES

Quality Assurance Engineer
NetApp, Inc.

 June 2015 – May 2016
 Morrisville, NC

PowerShell NAS Storage VMware Virtual Appliance

- Designed and implemented automatic quality assurance mechanisms for testing VMware Integration Solution on NetApp ONTAP storage system.

Product Development Intern
TMG Health

 Feb 2015 – Apr 2015
 Wexford, PA

Java Liferay Studio

- Debugged and improved the Broker Portal System (core agent management system).

VOLUNTEER EXPERIENCES

Volunteering Sponsorship Coordinator
UX Y'all conference 2024, UXPA Triangle

 July 2024 – Sep 2024
 Raleigh, NC

Communication Project Management

- Managed outreach efforts to secure sponsorships for the conference.
- Took initiative on two sponsors, securing sponsorship and day-of-conference details through in-time communication.

Volunteering UX Lead
Community Workshop Series, SILS UNC

 Sep 2023 – Apr 2024
 Chapel Hill, NC

Communication Project Management

- Volunteered as UX lead at Community Workshop Series(CWS), a student-run organization aiming to improve community-based information access and experience.
- Collaborated with the CWS leader and School of Information and Library Science administration(SILS) office to create practicum opportunities for SILS students to enhance the user experience and overall usability of the CWS website.

Volunteering Symposium Initiative
AI & Knowledge Work, SILS UNC

 July 2021 – Feb 2022
 Chapel Hill, NC

Communication Web Design

- Mini-conferences to celebrate 90th Anniversary of School of Information and Library Science, UNC-Chapel Hill
- Assisted Dean Marchionini with initiative, setting theme and agenda.
- Website design for the event.

SELECTED PUBLICATIONS

Journal Articles

- A. Z. Wang, D. Borland, T. C. Peck, **W. Wang**, and D. Gotz, "Causal priors and their influence on judgements of causality in visualized data," *IEEE transactions on visualization and computer graphics*, vol. PP, 2024. [Online]. Available: <https://api.semanticscholar.org/CorpusID:272146040>.
- Z. Zhou, **W. Wang**, M. Guo, Y. Wang, and D. Gotz, "A design space for surfacing content recommendations in visual analytic platforms," *IEEE Transactions on Visualization and Computer Graphics*, pp. 1–11, 2022. DOI: 10.1109/TVCG.2022.3209445.
- D. Borland, **W. Wang**, J. Zhang, J. Shrestha, and D. Gotz, "Selection bias tracking and detailed subset comparison for high-dimensional data," *IEEE Transactions on Visualization and Computer Graphics*, vol. 26, no. 1, pp. 429–439, 2020. DOI: 10.1109/TVCG.2019.2934209.
- D. Gotz, J. Zhang, **W. Wang**, J. Shrestha, and D. Borland, "Visual analysis of high-dimensional event sequence data via dynamic hierarchical aggregation," *IEEE Transactions on Visualization and Computer Graphics*, vol. 26, no. 1, pp. 440–450, 2020. DOI: 10.1109/TVCG.2019.2934661.
- D. Gotz, **W. Wang**, A. T. Chen, and D. Borland, "Visualization model validation via inline replication," *Information Visualization*, vol. 18, no. 4, pp. 405–425, 2019. DOI: 10.1177/1473871618821747.